

BY-LAW 48-95

A BY-LAW OF STRATHCONA COUNTY IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF ADOPTING THE COLLINGWOOD COVE AREA STRUCTURE PLAN.

WHEREAS it is deemed advisable to adopt the Collingwood Cove Area Structure Plan.

NOW THEREFORE, the Council of Strathcona County, pursuant to the authority conferred upon it by the Planning act, 1980, R.S.A., enacts as follows:

1. that this By-law 48-95 is to be cited as the "Collingwood Cove Area Structure Plan", and
2. that Schedule "A" attached hereto is hereby adopted as part of this By-law.

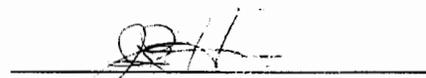
Read a first time this 12 day of December, 1995.

Read a second time this 9 day of January, 1995.6

Read a third time and finally passed this 9 day of January, 1995.6



Mayor



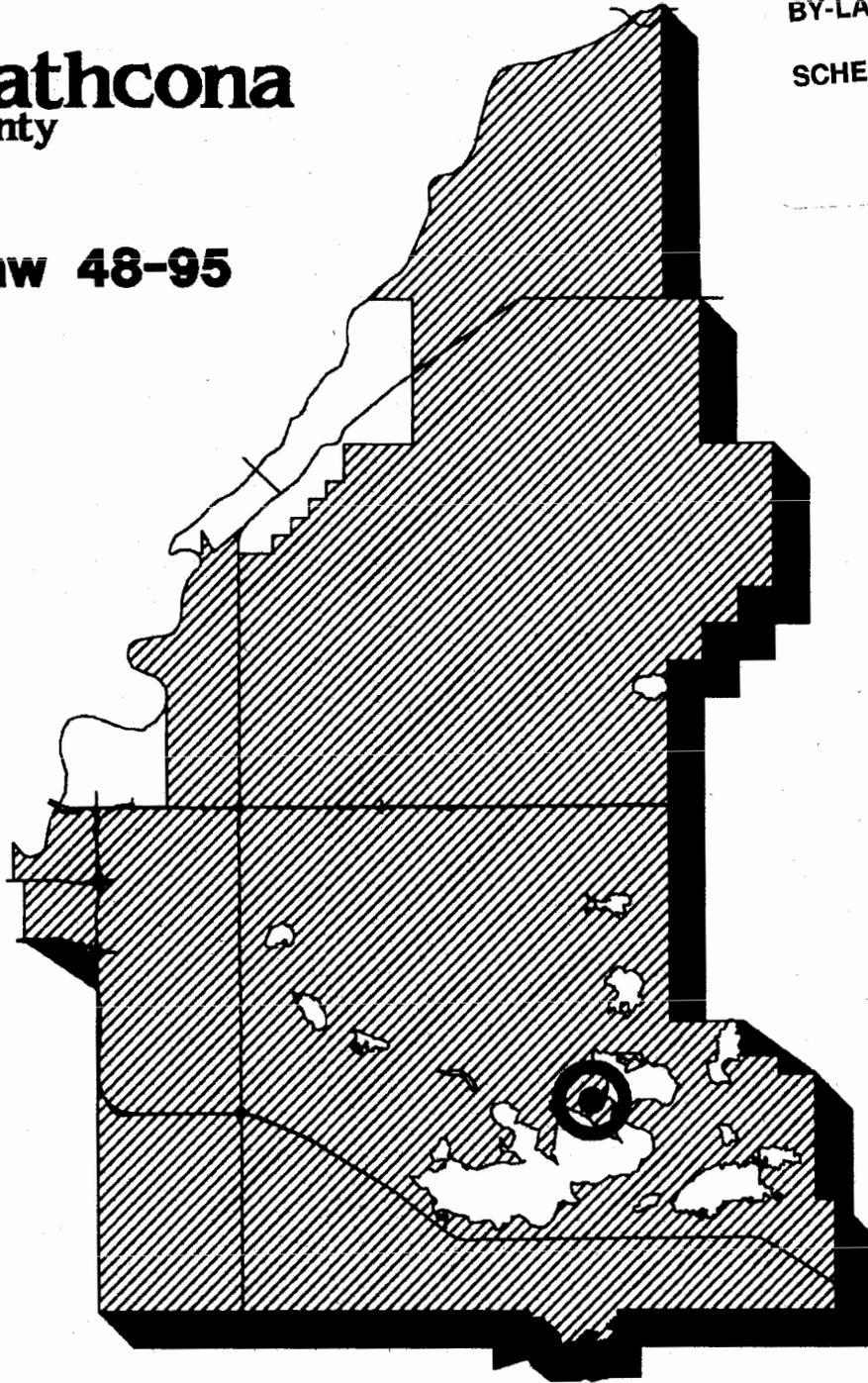
Corporate Secretary

Date Signed: 12 January 1996

Strathcona
County

BY-LAW 48-95
SCHEDULE "A"

By-law 48-95



Collingwood Cove Area Structure Plan

January 1996

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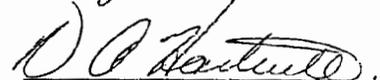
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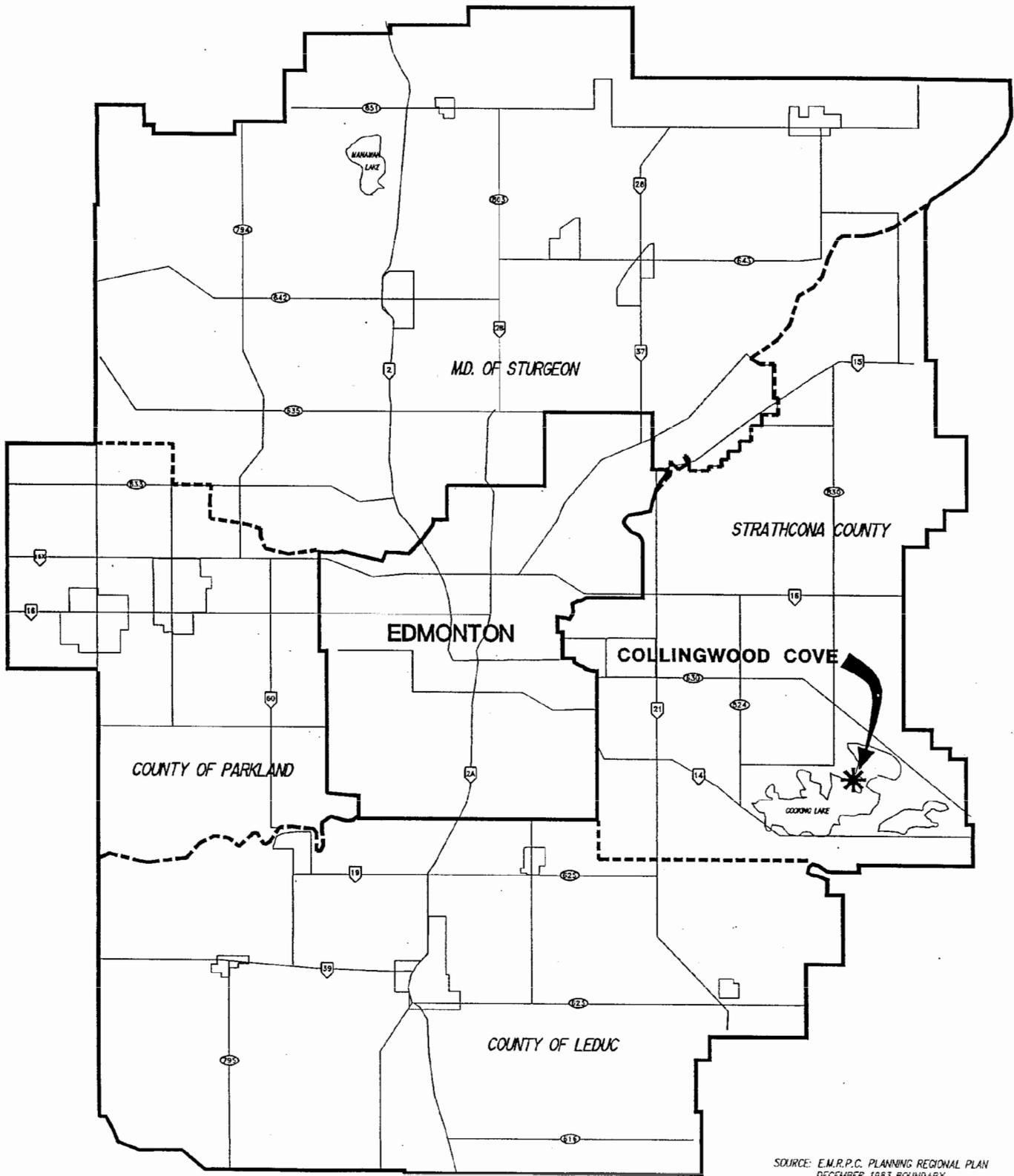
Read a third time and finally passed this 9 day of January, 1995/6


Mayor


Corporate Secretary

Date Signed: 12 January 1996

REGIONAL MAP



SOURCE: E.M.R.P.C. PLANNING REGIONAL PLAN
DECEMBER 1983 BOUNDARY

Strathcona
County

BY-LAW 48-95

COLLINGWOOD COVE AREA STRUCTURE PLAN

JANUARY, 1996

COLLINGWOOD COVE AREA STRUCTURE PLAN

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PART I
AREA STRUCTURE PLAN

1.0 INTRODUCTION

The preparation of the Area Structure Plan for Collingwood Cove is consistent with the direction provided by the Strathcona County General Municipal Plan. The General Municipal Plan states that Collingwood Cove shall be designated as a "growth hamlet" and that it may expand its boundaries as identified in an approved Area Structure Plan. This document is comprised of nine sections:

- Section 1 describes the purpose of the Plan and the policy context;
- Section 2 sets out the primary goals of the Area Structure Plan;
- Section 3 identifies the development concept and the policies of the Area Structure Plan;
- Section 4 describes the historical development and location of Collingwood Cove;
- Section 5 discusses the location of existing land uses and structures;
- Section 6 describes the natural features and municipal services of the Plan area;
- Section 7 describes some of the trends that will affect the hamlet's future;
- Section 8 provides an overall site analysis; and
- Section 9 describes the public participation process.

1.1 The Purpose of the Plan

The Collingwood Cove Area Structure Plan is forward looking in that it projects trends which may affect future growth and is also based on an analysis of the current situation.

The primary purpose of this Area Structure Plan is to identify the general direction for the development and growth of Collingwood Cove. In establishing a framework for future development the Plan, among other things, describes the proposed land use concept, the population densities, the general location of major transportation routes and the sequence of development in the hamlet of Collingwood Cove.

The Area Structure Plan process provides all residents and landowners with an opportunity to provide input into the type and extent of development that can take place in their hamlet. The need for an Area Structure Plan was reinforced in a 1994 hamlet survey that was distributed to all residents and landowners in Collingwood Cove. The survey showed 85% support for the preparation of an Area Structure Plan for the hamlet.

1.2 Policy Context

In accordance with the overall planning framework established in the planning legislation, the policies of this document must be in accordance with those established in the Strathcona County General Municipal Plan and the Land Use By-law. The policies must also be consistent with the Lakes Management Plan and the Outdoor Recreation Master Plan which specifically address the Cooking Lake area.

The Strathcona County General Municipal Plan identifies Collingwood Cove as a "growth hamlet" that may expand beyond its current boundaries. As a condition of growth beyond current boundaries, the General Municipal Plan requires that an Area Structure Plan be prepared through a consultative process with landowners and be approved by Council.

The objective of the Strathcona County Lakes Management Plan is to provide for compact residential communities with a high level of water and sewer services. The Lakes Management Plan identifies four hamlets as "growth hamlets". They include North Cooking Lake, Hastings Lake, South Cooking Lake and Collingwood Cove. Through the growth hamlet strategy, the Lakes Management Plan attempts to improve the level of municipal services within selected hamlets, while offsetting pressures for low density country residential subdivision within the Cooking Lake Moraine. In this way, wildlife habitat and other environmentally significant areas can be protected and conserved.

The Strathcona County Land Use By-law currently designates most of the lands within the hamlet boundaries as RH - Rural Community. This district provides for residential and a range of compatible land uses which are in keeping with the hamlet theme. The remainder of the Plan Area is designated AR - Rural District which provides for agricultural related initiatives.

2.0 GOALS OF THE AREA STRUCTURE PLAN

The goals listed below incorporate County policies as well as the views of the residents of Collingwood Cove as expressed through the public participation process. These goals reflect a wide range of land use, social, community and environmental issues. Decisions by Strathcona County should be guided by the spirit and direction expressed in the Collingwood Cove Area Structure Plan. The goals of the Area Structure Plan are:

1. to provide opportunities for efficiently serviced, compact residential development alternatives to land-extensive country residential uses within the Cooking Lake Moraine;
2. to provide Collingwood Cove residents with a legitimate and effective means of participating in the development of the community through the Area Structure Plan Process;
3. to clarify the disposition of County-owned lands in the NW 34-51-21-W4th and lakeshore areas, while promoting a greater level of resident and visitor awareness and education regarding the local environmental resources;
4. to provide a safe, convenient environment for the pedestrian by reducing the potential for pedestrian/vehicular conflicts;
5. to provide for the potential development of commercial land uses at later stages of growth; and
6. to maintain public access to the lake.

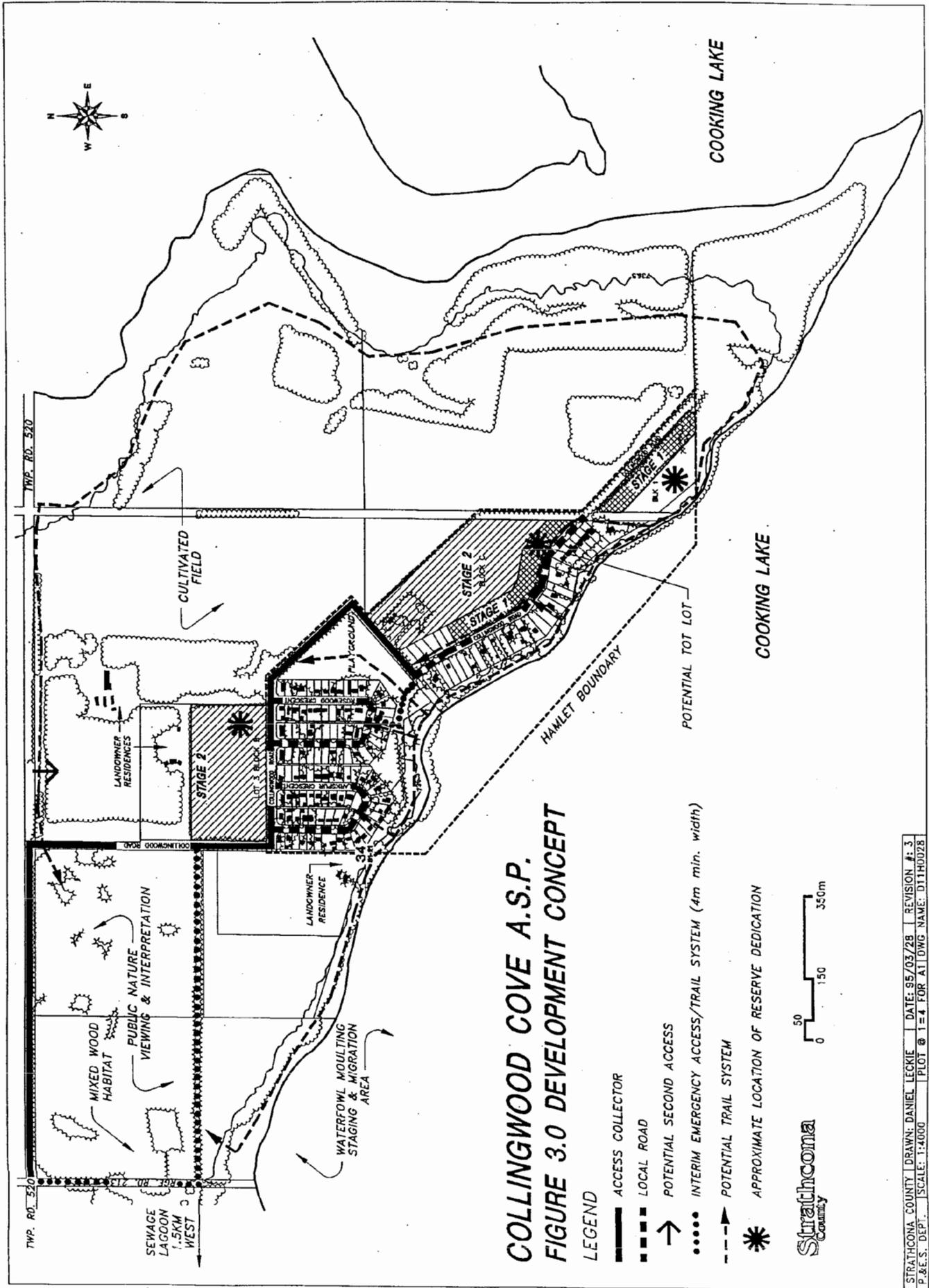
3.0 CONCEPT AND POLICIES OF THE AREA STRUCTURE PLAN

3.1 Development Concept

The development concept for Collingwood Cove is guided by the goals of the Area Structure Plan as identified in Section 2.0 of this Plan. In preparing the development concept, consideration was given to the physical opportunities and constraints to development, local input, the policies of the General Municipal Plan and the Lakes Management Plan. Detailed consideration was also given to the efficiency of servicing, growth potential and sound planning and urban design principles. The Development Concept is illustrated in Figure 3.0.

Input from the residents of Collingwood Cove indicated a preference for managed growth in order to maintain the rural character of the hamlet and to preserve the attractive natural setting of the community. It was also generally felt that further expansion beyond staged areas should only be considered in conjunction with an amendment to the Area Structure Plan, and then only in a north and northeasterly direction.

The Development Concept Plan illustrated in Figure 3.0 was favoured for a number of reasons. The most significant being that it attempts to maintain a balance between future residential growth and the protection of significant wildlife habitat areas. In addition, the concept encourages a compact residential form. The staging proposed provides for development which is contiguous with existing developed areas in the hamlet and is efficient and cost-effective in terms of servicing. The proposed hierarchy of roadways and the dual access system help mitigate some of the safety and efficiency shortcomings inherent in a community with a single access. The concept provides for the protection of the lakeshore habitat at the southeast corner of the Plan area in the northwest Section 26 through the placement of a conservation agreement. Important travel corridors and wildlife habitat areas are retained and opportunities for linkages between these areas and other points in the hamlet through a pedestrian trail network are provided. With regard to meeting the recreational needs of the community, the long range objective is to provide for a variety of neighbourhood and community level opportunities at various intensities of use. Open space within the Plan area is distributed in accordance with the locational guidelines of the Open Space Development Standards.



**COLLINGWOOD COVE A.S.P.
FIGURE 3.0 DEVELOPMENT CONCEPT**

LEGEND

- ACCESS COLLECTOR
- - - LOCAL ROAD
- ➔ POTENTIAL SECOND ACCESS
- INTERIM EMERGENCY ACCESS/TRAIL SYSTEM (4m min. width)
- - - POTENTIAL TRAIL SYSTEM
- ★ APPROXIMATE LOCATION OF RESERVE DEDICATION

Strathcona
County

3.2 Residential Land Use

The hamlet of Collingwood Cove has sufficient land within its existing boundaries to accommodate residential growth for approximately 47 years based on historic growth rates. A further 16 years of growth can be accommodated on those lands located outside the hamlet boundary and identified in Figure 3.0: Development Concept.

The Area Structure Plan supports infilling of vacant lots in existing developed residential areas to meet the hamlet's short-term housing needs. The Plan also supports further development in Block C of Stage 1 which comprises those lands located along Collingwood Cove Road. Prior to the development of Block 1 of Stage 1, provision is to be made for a temporary emergency access route through Block C in the event that roadways in the southeast corner of the hamlet are blocked. The Plan makes provision for a second stage of development which is contiguous with Stage 1 and existing developed areas. Stage 2 is comprised of Lot 3, Block B and the back portion of Block C. The Plan provides some flexibility in that development may be initiated in either Lot 3, Block B or Block C depending on market conditions at the time of development. However, once development has been initiated in one of the parcels, that parcel must be developed to 50% of build-out before expanding to the remaining parcel in Stage 2. All new development within Stage 1 and Stage 2 is required to connect to the Canadian Utilities waterline.

Areas such as Block 1 which are suspected to have potential geotechnical constraints through preliminary Area Structure Plan findings will require further evaluation at time of subdivision approval. Further residential expansion beyond the five hundred population, for which the lagoon was designed, will require a further evaluation of the existing sanitary sewage system to determine capacity. Further residential expansion, beyond staged areas, will be considered in conjunction with an amendment to the Area Structure Plan and then only in a north and/or northeasterly direction.

All of the housing in Collingwood Cove is expected to be provided in the form of single family dwellings.

The Plan encourages the preservation of a natural buffer of trees around all subdivision areas in order to provide privacy as well as a buffer between wildlife corridors. In accordance with the developer's plans, a 4.6 m (15 ft.) treed buffer strip will be incorporated into each lot in Stage 1, Block C along the rear lot line. A conservation agreement will be placed on the treed buffer strip to ensure that the trees are preserved. The 4.6 m treed buffer will not form part of the municipal reserve dedication requirement.

For the purposes of the following chart, density calculations for residential areas are based on the assumption that 25% of the parcel will be used for roads and public utility lots plus an additional 10% for reserve requirements. The average lot size is based on the average between the Rural Community District lot 929 m² (10,000 ft²) and the Suburban Estate Residential District lot (1,350 m²), resulting in an average lot size of 1,140 m² (12,271 ft²). Table 3.0: Estimated Lot Yield and Population Generation provides an estimation of lot yield and population generation for each stage of growth.

Table 3.0: Estimated Lot Yield and Population Generation			
Stage	Parcel Size (ha.)	Additional Lot Yield	Additional Population @ 2.9 persons/dwelling unit
Stage 1	5.30 ha	30	87
Stage 2: Pt.Block C & Lot 3	12.20 ha	70	203
		100	290

.1 Residential Land Use Policies

- .1 Residential development shall be comprised of single family housing. Creation of single lots with municipal water and sewer shall have a minimum area of 929 m² (10,000 ft²). All lots created within a multi-lot subdivision application shall average 1,140 m² (12,271 ft²).
- .2 Infilling of vacant lots in existing developed residential areas is encouraged to meet the hamlet's short-term housing needs and to improve the viability of municipal servicing.
- .3 Housing shall be staged in a contiguous, efficient sequence as indicated in Figure 3.0. The Plan provides for expansion to subsequent stages once the previous stage has been developed to 50% of build-out. Within Stage 1, a temporary emergency access shall be constructed through Block C prior to the development of Block 1 of Stage 1. In the case of Stage 2, the Plan provides for expansion to subsequent parcels within Stage 2 once the previous parcel has been developed to 50% of build-out.
- .4 Where possible, new development shall preserve existing trees and maintain natural features in order to preserve privacy in residential areas. Measures shall be taken to visually and aesthetically buffer residential lots located along the collector portion of Collingwood Cove Road. Methods of tree retention and revegetation shall be identified at the development agreement stage.
- .5 Where determined necessary by the County at the subdivision approval stage, in areas suspected to have geotechnical/environmental constraints the developer shall complete a geotechnical/environmental analysis to the County's satisfaction.
- .6 Further residential expansion beyond staged areas will be considered in conjunction with an amendment to the Area Structure Plan and then only in a north and/or northeasterly direction.
- .7 A conservation agreement shall be placed on the 4.6 m treed buffer strip located within the rear lot line for lots created in Stage 1, Block C.

- .8 The opportunity for public input into by-law amendments and subdivision applications affecting the Hamlet shall be provided through notification of the Collingwood Cove Community Association.

3.3 Commercial Land Use

The Area Structure Plan supports the development of commercial land uses if demand warrants.

The retail trade area for commercial land uses in Collingwood Cove is basically limited to local residents within the boundaries of Collingwood Cove and the nearby rural area. At present the local population is not large enough to support a commercial development. However, should population increases warrant consideration of a commercial site in the long term, a 0.4 ha (1 ac) site will be provided in Stage 2 at the intersection of Collingwood Cove Road and a local road to capitalize on vehicular exposure and reduce the amount of through traffic in residential areas. The most appropriate types of commercial uses include, but are not limited to:

- grocery/convenience store,
- cafe,
- gas bar; or
- beauty or barber shop.

.1 Commercial Land Use Policies

- .1 The development of commercial uses, other than home occupations, should be discouraged in residential areas.
- .2 A 0.4 ha (1 ac) commercial site will be provided for in Stage 2 at the intersection of Collingwood Cove Road and a local roadway. The site access and location shall be designed to meet the County's standards.

3.4 Open Space System

The Strathcona County Outdoor Master Plan was prepared in 1987 and provides a planning strategy for recreational related developments and programs. In the case of Collingwood Cove, the Outdoor Master Plan emphasizes trail development and the use of the lands in the NW 34-51-21-W4th as a natural environment park on a regional scale. The Collingwood Cove Area Structure Plan recognizes the importance of the Outdoor Master Plan as a complementary long-range planning tool for community development and supports the initiatives put forth in the Master Plan regarding the protection of lands in the NW 34-51-21-W4th and future trail development. The Plan also addresses recreational open space development within the Plan area.

The Plan provides for a trail system to be developed throughout the hamlet in order to provide access to residential areas, recreation areas and the lakeshore as illustrated in Figure 3.1: Open Space System. Trail development will proceed in conjunction with future development and community involvement. The trail system will generally be comprised of a 1.5 m hiking trail with bark chips as illustrated in Appendix 1.0. The pedestrian trail system will require additional site design and restoration with native species to complement the existing mix of forest and open areas. Criteria for trail and corridor enhancement will include wind protection, snow accumulation, edge habitat and visual buffers from development. The acquisition of land for trail purposes is to be achieved through the provision of municipal and environmental reserve requirements at the time of subdivision and as funding becomes available.

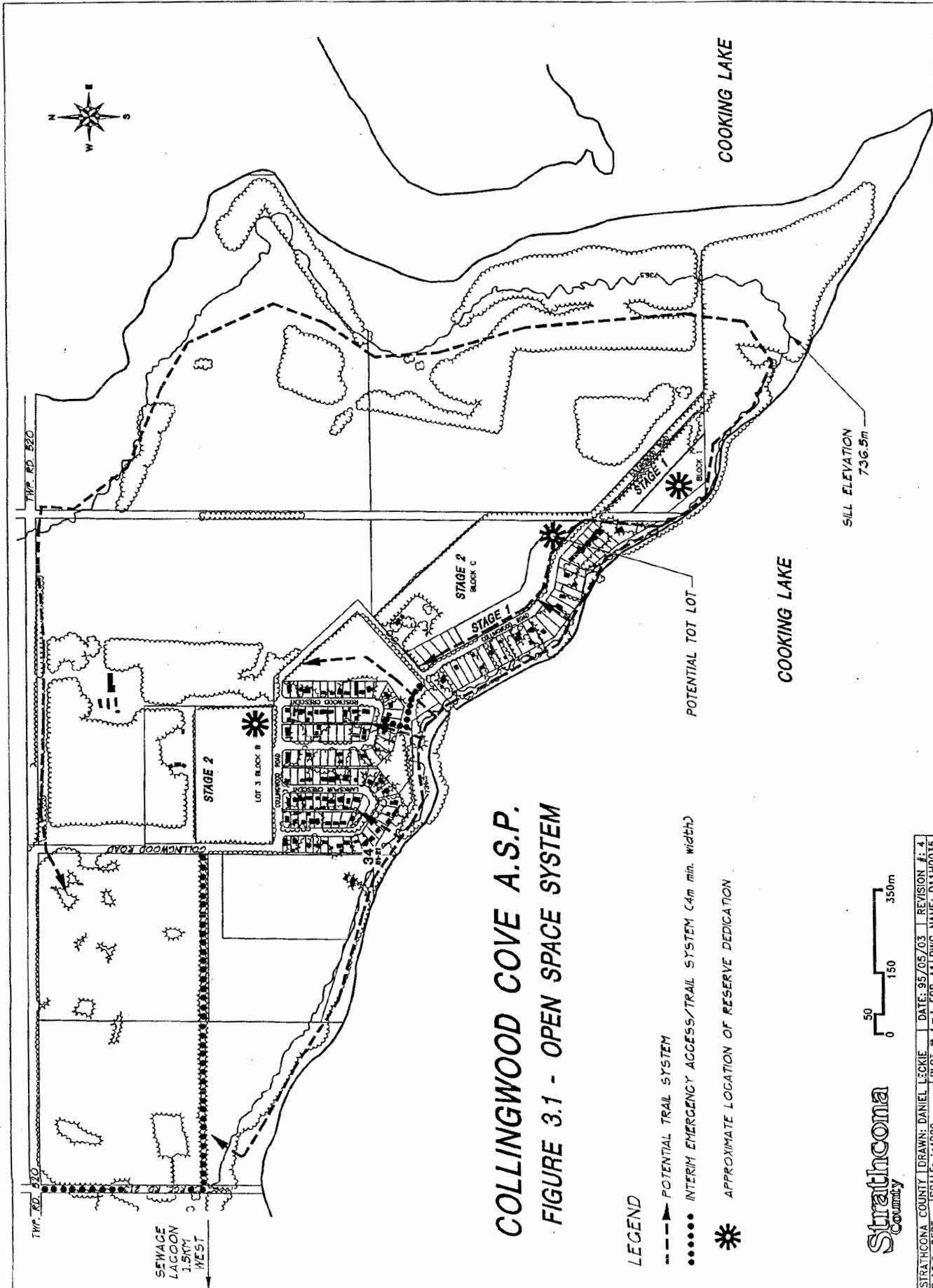
Provision is made for neighbourhood and comprehensive level open space through the receipt of municipal reserve at time of subdivision. In accordance with the 1995 Open Space Development Standards, the Plan provides for the dedication of a 0.5 to 0.75 acre parcel of land for a potential neighbourhood tot lot at the eastern end of Block C, Stage 1 along Collingwood Cove Road. The exact configuration of the tot lot is to be determined prior to further subdivision approval in Block C, Stage 1 to the County's satisfaction. Levies shall be acquired at each stage of development to ensure the future construction of the park space. Opportunities for comprehensive recreational open space including a ball diamond and sports fields are supported at later stages of development as the population increases and are accommodated through the deferral of reserve requirements at time of subdivision or through other mechanisms. The Plan provides for a comprehensive recreational facility to be located in Lot 3 of Stage 2. Arrangements for the acquisition of this land will be made during the development of Block C, Stage 1 through a development agreement. The planning and design of the comprehensive recreational open space will be initiated once the staged areas have collectively reached 50% build-out. The site for the comprehensive open space shall be completely developed once 85% build-out is achieved within the collective staged areas. In conjunction with this long-term objective, provision is made for levies to be acquired at Stage 2 of development. In addition, the Plan supports the development of a neighbourhood tot lot in Lot 3, Stage 2 if population warrants.

The County will pursue a restrictive covenant on a portion of the lands within the NW 26-51-21-W4th to preserve the natural features on the property until a more appropriate means is provided by provincial legislation.

The Plan also protects major wildlife corridors within the Plan area. A minimum 70 m corridor width is retained to protect these corridors. A further 50 m shoreline development setback from the 736.5 m sill elevation contour has been identified.

.1 Open Space System Policies

- .1 Pursuant to Section 666, Part 17 of the Municipal Government Act, 1995, a developer of a new subdivision is required to dedicate 10% of the land for future park. Land dedicated for parks shall be centrally located and accessible to residential areas and/or the lakeshore as shown conceptually in Figure 3.1.
- .2 Trail systems shall be developed throughout the hamlet as funding becomes available in order to improve linkages to recreation areas, the lakeshore and residential areas. Funding methods could include off-site levies, development agreements, donations and available funding.
- .3 The County in cooperation with the Community Association are encouraged to determine the range of non-motorized and motorized recreational activities that are appropriate within the Plan area.
- .4 Significant wildlife corridors and shoreline areas shall be protected from undue encroachment and degradation wherever possible.
- .5 Where additional open space is required to complete the open space network, or specific lands are to be protected as in the case of shoreline on a Pt. NW 26-51-21-W4th and a portion of Block 1 in the SW 35-51-21-W4th, conservation agreements or easements shall be utilized wherever possible.
- .6 A comprehensive recreational site including but not limited to a ball diamond or sports fields shall be accommodated through the deferral of reserve requirements at the time of subdivision or through other mechanisms. The Plan provides for a comprehensive recreational facility to be located in Lot 3 of Stage 2. Arrangements for the acquisition of this land will be made during the development of Block C, Stage 1 through a development agreement. The planning and design of the comprehensive recreational open space will be initiated once the staged areas have collectively reached 50% build-out. The site for the comprehensive open space shall be completely developed once 85% build-out is achieved within the collective staged areas. Levies will be acquired at Stage 2 of development to facilitate the development of the comprehensive site.
- .7 In accordance with the 1995 Open Space Development Standards, the Plan provides for the dedication of a 0.5 to 0.75 acre parcel of land for a potential neighbourhood tot lot at the eastern end of Block C, Stage 1 along Collingwood Cove Road. The exact configuration of the tot lot is to be determined prior to further subdivision approval in Block C, Stage 1 to the County's satisfaction. Levies shall be acquired at each stage of development to ensure the future construction of the park space.
- .8 The development of pathways to improve access to the lake, recreation areas and other residential areas will be encouraged within existing and proposed residential subdivisions (Refer to Figure 3.1).



COLLINGWOOD COVE A.S.P.
FIGURE 3.1 - OPEN SPACE SYSTEM

LEGEND

- POTENTIAL TRAIL SYSTEM
- INTERIM EMERGENCY ACCESS/TRAIL SYSTEM (4m min. width)
- ★ APPROXIMATE LOCATION OF RESERVE DEDICATION



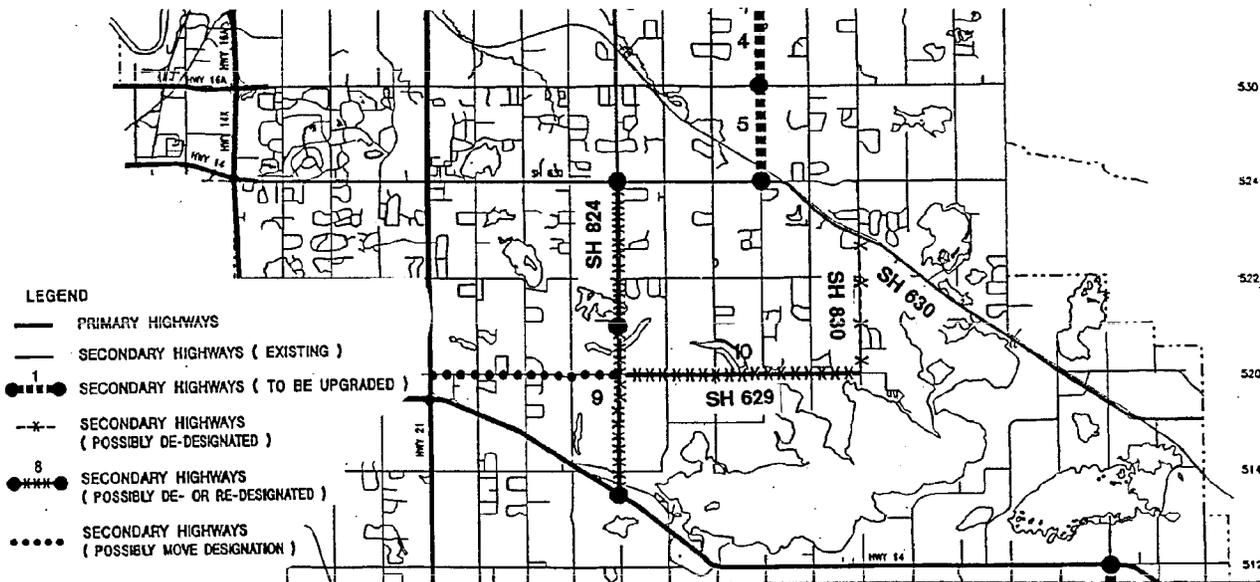
Strathcona
 Community

STRATHCONA COUNTY DRAWN: DANIEL LECKIE DATE: 95/05/03 REVISION #: 4
 P.A.E.S. DEPT. SCALE: 1:4000 PLOT # 1-4 FOR ALL DWG NAME: D11H0035

3.5 Transportation Network

The transportation network for the Collingwood Cove area is comprised of two secondary highways, a single access collector and a number of local roads.

The external roadway network is comprised of Secondary Highway 830 and Secondary Highway 629, which are discussed in the 1995 Rural Roads Master Plan. Under the Rural Roads Master Plan - Secondary Highway Program, Secondary Highway 830 from Secondary Highway 630 to Secondary Highway 629 is identified for possible de-designation. Secondary Highway 629 from Secondary Highway 830 to Secondary Highway 824 is identified for possible de-designation or re-designation. The possible de-designation of these sections of highway is not considered to be a constraint to further development in the hamlet.



The hamlet's internal roadway system is currently comprised of two local roadways including Larkspur and Rosewood Crescents and a single collector roadway which provides the only access into and out of the hamlet. The problems that emergency vehicles and residents alike could encounter with having only one access are acknowledged. Given the costs and impracticalities associated with constructing a second access for general traffic circulation purposes, the Plan provides for an access to be constructed for emergency purposes only.

The Plan recognizes the potential for hamlet growth and provides for greater traffic safety and efficiency in traffic flow through a series of initiatives. The Plan establishes a hierarchy of internal roads, specific access requirements, looping and a staging of roadways in conjunction with future stages of residential growth. Figure 3.2: Transportation Network illustrates the proposed hierarchy of roads.

Hierarchy of Roads and Access Requirements - The Plan provides for that portion of Collingwood Cove Road south of Township Road 520 to the southwest corner of Block C to be designated as an access collector, with the remaining east/west leg being designated as a local roadway. The number of approaches and roadway intersections are minimized in order to lessen the potential for disruption of traffic along the access collector portion of Collingwood Cove Road. New single family residential lots would be permitted direct access to local roadways but not to the access collector. The Plan requires that any commercial development be located along an access collector rather than along a local roadway.

Looping and Staging of Roadways - The Plan also provides for the looping or dual accessing of roadways in the event that existing roadways are obstructed. Looping opportunities are provided through the development of emergency accesses and local roads which will be constructed as development proceeds. The looping of the roadway network in Collingwood Cove is provided within:

- .1 existing infill areas through the development of an emergency access which connects the south end of Rosewood Crescent with Collingwood Cove Road to the east;
- .2 the NW 34-51-21-W4th through the development of an emergency access which connects the entrance of the hamlet to the north/south leg of Collingwood Cove Road; and
- .3 Stage 2 through the development of future local roadways which will be constructed as residential development proceeds (The proposed looping is illustrated within the key map in Figure 3.2).

Approximately two-thirds of the emergency access located on Rosewood Crescent already has a gravel surface making it a cost-effective alternative that can be developed within the next two years. Emergency accesses shall be located within a 6 m right-of-way and will have a 4 m gravel surface. The entrances of all emergency access routes shall be bollarded or fenced to prevent access by motorized vehicular traffic. Emergency access routes will be financed through levies contributed by new development.

Prior to the completion of development of Block C, Stage 1, a pre-brushed and grubbed right-of-way shall be prepared in the interim to allow for emergency access through Block C. The emergency access should generally follow the alignment of the proposed future roadway in Block C. An access easement shall be required during the development of Block C, Stage 1 to accommodate the future route. Development of the emergency access in Section 34 will take place at Stage 1, subject to available funds.

The Plan promotes the on-site provision of parking for all residential and commercial lots as the present right-of-way configuration does not accommodate on-street parking. Current County roadway standards require that a 30 m right-of-way be constructed for all new roadways in hamlets (refer to Appendix 2.0). The County may consider a lesser right-of-way width where the developer can demonstrate that equivalent engineering standards, drainage and carriageway objectives can be achieved. The Plan also requires the construction of an asphalt surface within new subdivision areas.

.1 Transportation Network Policies

- .1 The hamlet's road network shall be designated in accordance with Figure 3.2.
- .2 Dual access and looping of roadways within Collingwood Cove shall be provided in accordance with the locations and configurations identified in Figure 3.2.
- .3 New roadways shall be paved with an asphalt surface.
- .4 New single family residential lots are permitted to access directly onto a local road, but shall not have direct access onto an access collector.
- .5 Commercial land uses may access directly onto an access collector provided that the site access is designed to meet County standards.
- .6 Where possible, the proposed layout in new subdivisions shall be designed with crescents and cul-de-sacs for the purpose of maintaining residential privacy and discouraging through traffic.
- .7 Current County roadway standards require that a 30 m right-of-way be constructed for all new roadways in hamlets. The County may consider a lesser right-of-way width where the developer can demonstrate that equivalent engineering standards, drainage and carriageway objectives can be achieved.
- .8 The County shall require off-site levies for the construction of a second access to the hamlet. Off-site levies shall be acquired at the development agreement stage.
- .9 Emergency access shall be provided in the NW 34-51-21-W4th and between Rosewood Crescent and Collingwood Cove Road as illustrated in Figure 3.2, complete with bollarding and/or fencing.
- .10 Emergency accesses shall be located within a 6 m right-of-way and shall have a 4 m gravel surface.
- .11 Prior to the completion of development of Block C, Stage 1, a pre-brushed and grubbed right-of-way shall be prepared to allow for emergency access through Block C. The emergency access should generally follow the alignment of the proposed future roadway in Block C. An access easement shall be required during the development of Block C, Stage 1, to accommodate the future route.

3.6 Municipal Services

.1 Water System

A preliminary study on the groundwater supply was conducted by McCann and Associates in 1988. The study suggested that the reliability and long-term supply of groundwater was suspect and would require further evaluation prior to development. The Plan requires that until such time as the Canadian Utilities waterline is installed, all new developments shall undertake an evaluation of the groundwater supply to determine the reliability and long-term supply. Once the line is installed, subsequent subdivision applications will be required to connect to the Canadian Utilities waterline.

Collingwood Cove is within the Canadian Utilities franchise area. Canadian Utilities intends to pipe water into Antler Lake and oversize the Antler Lake reservoir to allow for the servicing of Collingwood Cove. Connection to the waterline for the residents of both hamlets will be on a voluntary basis. For those tying into the system there will be a one-time connection fee that will be payable to Strathcona County for their contribution to development of the reservoir and the supply line. In addition, there will also be fees payable to Canadian Utilities for initial connection and a monthly charge for water. Residents would be responsible for their own cistern and installation of the service line from the property line to the house.

.2 Sewage Collection System

The existing sanitary sewer collection system in Collingwood Cove has a design capacity of 500 persons. Without any modifications, the existing system has the ability to accommodate the development of all land within the existing hamlet boundaries. Further development beyond the prescribed design capacity will require evaluation of capacity of the forcemain, collector lines and the lagoon to determine whether development beyond 500 population can be accommodated on the existing system. Where development cannot be accommodated an increase in capacity of the existing evaporation lagoon may be required. This may be accommodated through over sizing of the current facility or other methods which are considered acceptable to the County. Engineering and expansion of the sewage system will be financed through the levies that have been contributed by new development.

Given the topography of the Plan area most of the lands available for future development will be serviced by a gravity system, however, some areas of Stage 2 and the southeast tip of Stage 1 may be serviced by a low pressure system.

Since future development will be the primary beneficiary of these increases in sewer capacity, off-site levies will be collected on all new residences and/or commercial uses as part of a development agreement with the County.

.3 Stormwater Management

Stormwater management in the Area Structure Plan area is to be achieved by means of overland drainage into Cooking Lake. Detailed stormwater management plans prepared at time of subdivision should respect the existing topography as much as possible and minimize the amount of land to be disturbed. Overall drainage patterns within the hamlet will be evaluated and integrated with the roadway drainage system in a future study.

.4 Municipal Services Policies

- .1 All new development shall connect to the Canadian Utilities waterline once it has been installed. Prior to the installation of the Canadian Utilities waterline, new multi-parcel developments shall undertake an evaluation of the groundwater supply to determine the reliability and long-term supply.
- .2 Development beyond the prescribed design capacity of 500 persons shall require an evaluation to determine capacity of the forcemain, collector lines and the lagoon to accommodate additional development on the existing system. Available methods and technologies will be reviewed at that time.
- .3 The County shall require off-site levies from all staged areas for the future expansion of the sewage system. Off-site levies shall be acquired at the development agreement stage.
- .4 An overall stormwater management plan shall be identified at the time of subdivision. Stormwater drainage shall be integrated with roadway drainage. The longitudinal distance of ditches shall be reduced through use of culverts, swales and efficient lot grading.

3.7 Plan Implementation

.1 Land Use By-law Amendments

The Strathcona County Land Use By-law shall be amended to include a new hamlet residential district. This district would draw a clear distinction between residential and non-residential land uses within Strathcona County hamlets.

.2 Drainage Study

The County shall complete an overall drainage plan within the hamlet prior to development of lands outside current hamlet boundaries.

.3 Closure of Portion of Road Allowance for Range Road 212

That portion of the road allowance for Range Road 212 located along the eastern boundary of Block C and east of Lot A, Block 4 may be closed to the satisfaction of the County Engineer.

PART II
BACKGROUND INFORMATION

4.0 PLAN CONTEXT

4.1 Historical Development

The Hamlet of Collingwood Cove is located in Strathcona County within the Cooking Lake Moraine, a glacial feature which has evolved over the years into an area that is characterized by particularly diverse and extensive wildlife habitat and terrain. For many years the resource-rich area was used by the Cree as a hunting, trapping and fishing area which also provided a variety of fruits and berries. Cooking Lake was referred to by the Cree as Opi-mi-now-wa-sioo which translates into the "Cooking Place". Later, the area was also used by Europeans as an overnight camping spot as they travelled across the country.

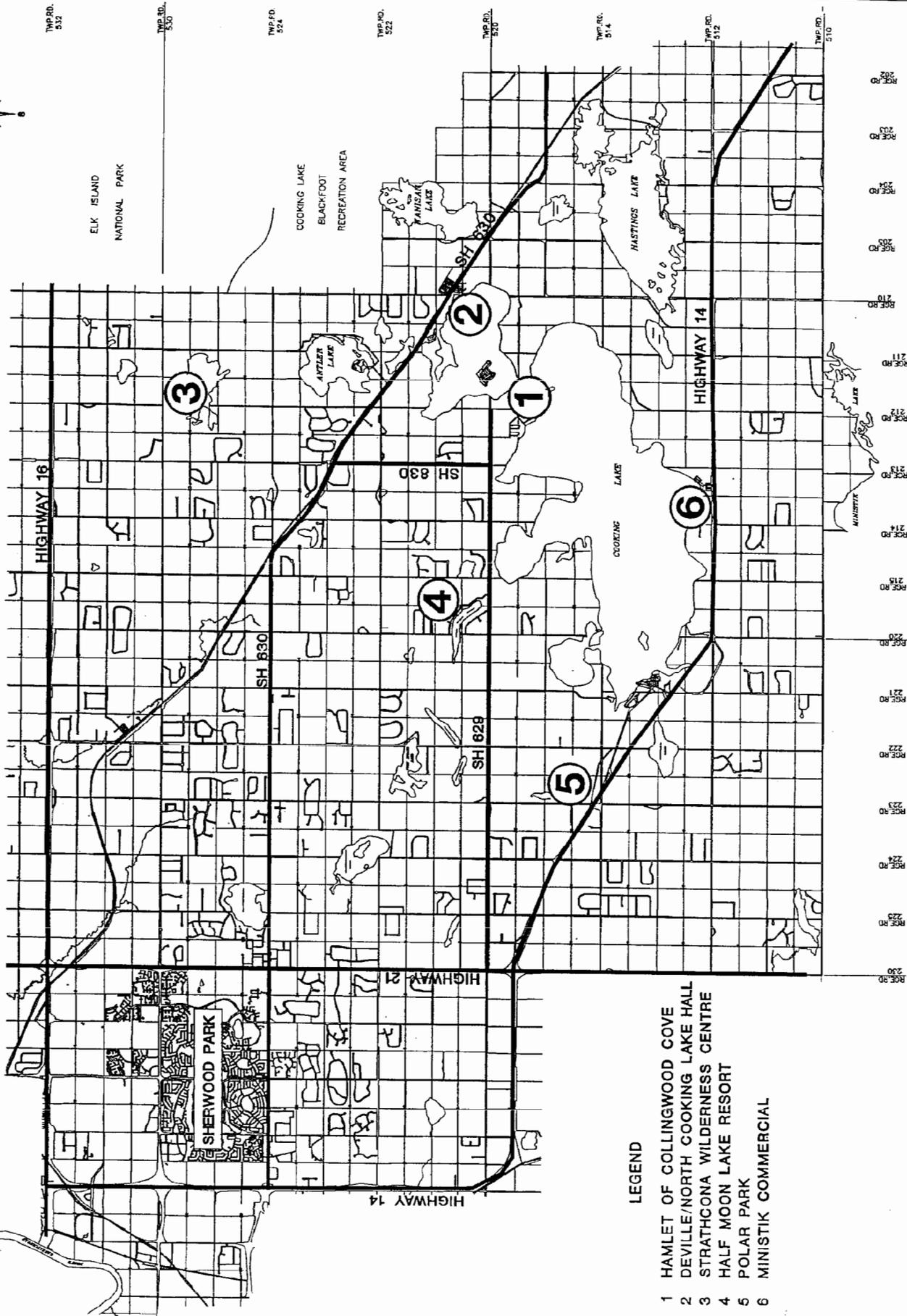
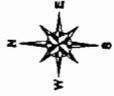
Over the years, Collingwood Cove's identity was shaped by the lake, as it became a treasured recreation spot for Edmonton families who wanted to get away from the hustle of the city. Collingwood Cove was first settled in the 1960's, as a popular resort location. Since the mid 1970's, development has consisted of mostly permanent residences. The conversion from seasonal to permanent residency is becoming more prevalent as more families chose to live in rural areas in order to take advantage of the open space, low-density housing, fresh air and wildlife.

4.2 Location

Figure 4.0: Regional Context illustrates the location of Collingwood Cove. The hamlet of Collingwood Cove is located approximately 23 km (14 mi.) southeast of Sherwood Park on the north shore of Cooking Lake. Access to the hamlet is provided by Secondary Highways 830 and 629. The lands within the Area Structure Plan area encompass all those lands within Section 34, the west half of Section 35 and the northwest Section 26, Township 51, Range 21, West of the 4th meridian.

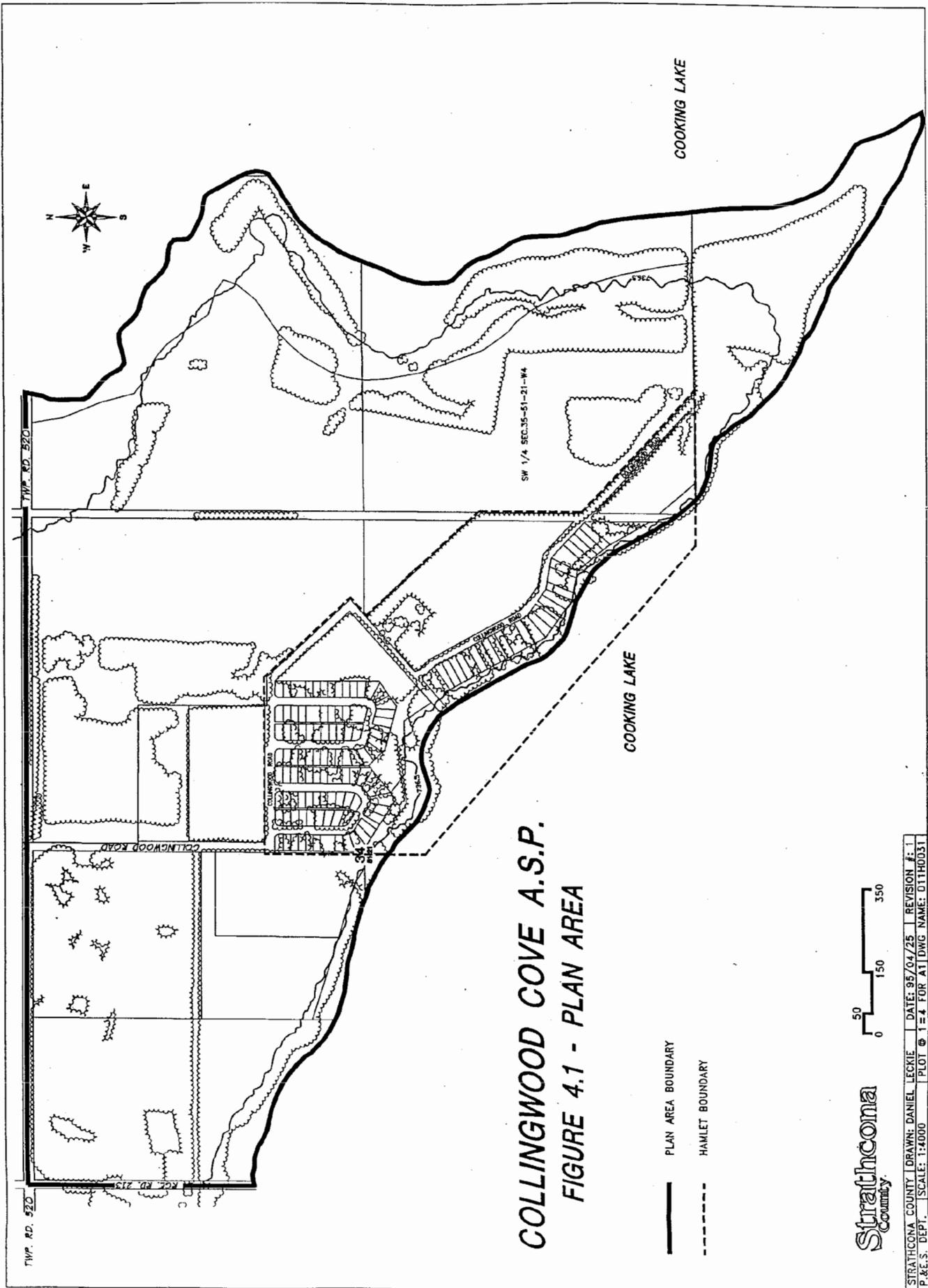
The Plan area features rolling moraine, mature mixed wood forest, a lake, wetlands, and an abundance of waterfowl and other wildlife. These lands are outlined in Figure 4.1: Plan Area. The area is considered regionally significant as a breeding, moulting, staging and migration stopover for waterfowl (D.E. Griffiths, 1987). There are good opportunities for bird watching, nature observation, hiking and cross-country skiing. In addition, Collingwood Cove is within close proximity to organized recreational activities including: Polar Park, Half Moon Lake Resort, Strathcona Wilderness Centre, the Deville/North Cooking Lake Hall, the Blackfoot Recreation Area, Ministik Bird Sanctuary, Provincial Natural Areas and several nearby golf courses. These features, along with its close access to Sherwood Park and the City of Edmonton make Collingwood Cove a very attractive location.

COLLINGWOOD COVE AREA STRUCTURE PLAN FIGURE 4.0 REGIONAL CONTEXT



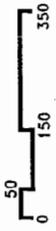
LEGEND

- 1 HAMLET OF COLLINGWOOD COVE
- 2 DEVILLE/NORTH COOKING LAKE HALL
- 3 STRATHCONA WILDERNESS CENTRE
- 4 HALF MOON LAKE RESORT
- 5 POLAR PARK
- 6 MINISTIK COMMERCIAL



COLLINGWOOD COVE A.S.P.
FIGURE 4.1 - PLAN AREA

— PLAN AREA BOUNDARY
 - - - HAMLET BOUNDARY



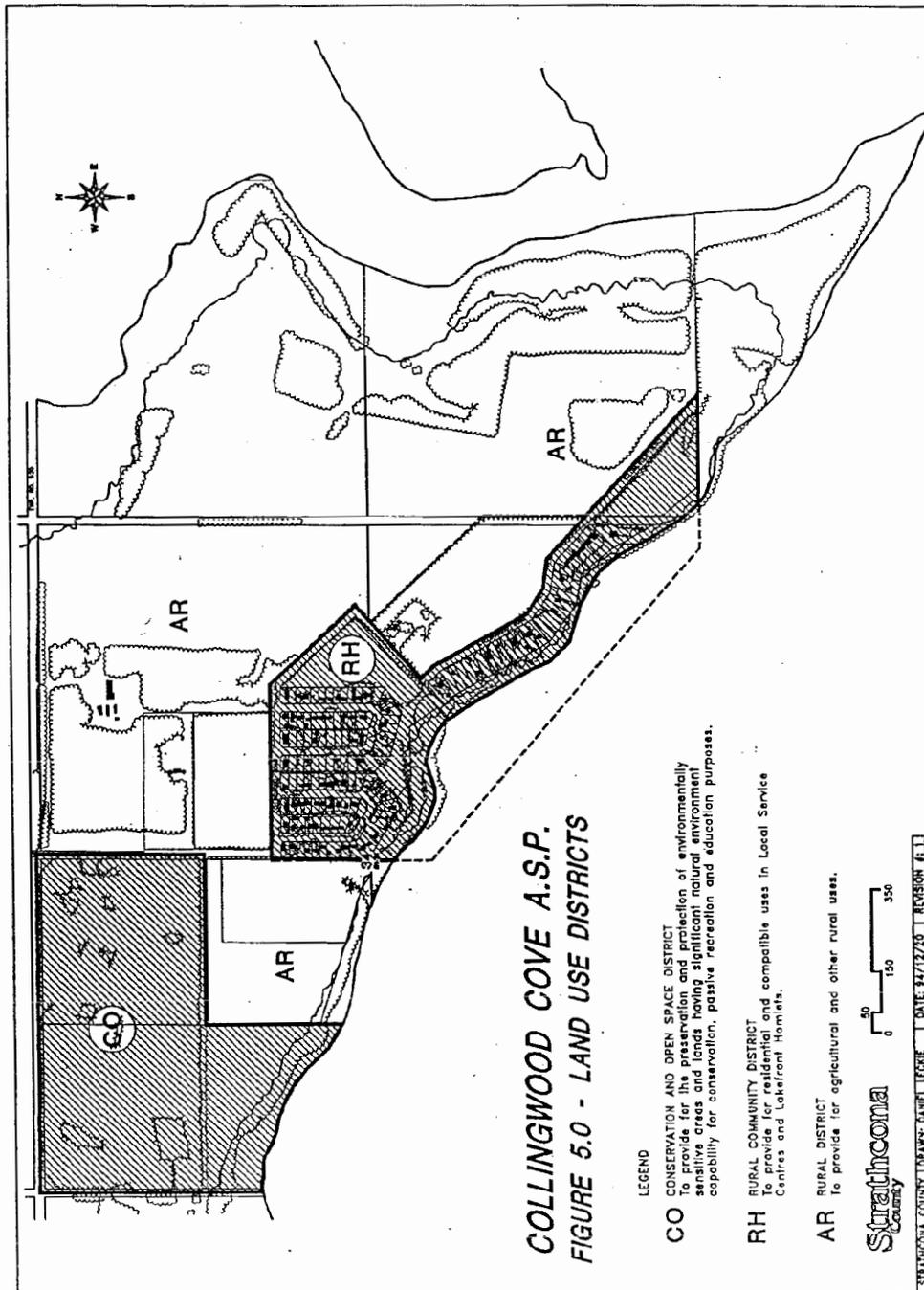
Strathcona
 County

STRATHCONA COUNTY	DRAWN: DANIEL LECKIE	DATE: 95/04/25	REVISION #: 1
P.&E.S. DEPT.	SCALE: 1:4000	PLOT @ 1:4 FOR A1	DWG NAME: 011H0031

5.0 HUMAN FEATURES

5.1 Existing Land Use and Structures

Figure 5.0: Land Use Districts identifies the existing land use classification and structures for those lands within the Plan area.



5.2 Distribution of Land Uses Within the Plan Area

The allocation of land uses within the Plan area are summarized in Table 5.1: Land Use Distribution Within the Plan Area. Within the Plan area overall, there is an additional 179.5 ha (443.6 ac.) of land over and above the land encompassed by the hamlet boundary. The Strathcona County General Municipal Plan designates the hamlet as a "growth hamlet" and the lands outside the hamlet boundary are designated as "Lakeland Area". The Strathcona County Land Use By-law designates 67% of the Plan as AR - Rural District. The CO - Conservation and Open Space District and RH - Rural Community District represent 18% and 15% of the Plan area respectively. Lands within the Conservation District are considered to be environmentally sensitive and for that reason are to be preserved in accordance with the policies of the Outdoor Master Plan. At present, there are three residences located outside the hamlet boundary within the Plan area. Treed and cultivated lands occupy approximately 88% of the Plan area. Approximately 13% of the Plan area is located within areas that have been determined to have geotechnical constraints to development.

The lands immediately surrounding the Plan area to the west and north are designated AR - Rural District and are used primarily for grazing and forage production.

Table 5.1: Land Use Distribution Within the Plan Area *

Land Use	Area (Hectares)	Area (Acres)	% of Total Area
RH - Rural Community Developed Residential	13.82	34.16	7
Undeveloped	2.9	7.18	1
Municipal and Environmental Reserve Lands	5.28	13.04	2.6
Roadway Network	6.73	16.64	3
AR - Rural District Undeveloped Land	149.1	368.38	69
Conservation and Open Space	36.93	91.26	17
Utility Easements	0.80	1.98	0.4
Totals	215.56	532.64	100

* Note: Calculations are measured to the sill elevation.

5.3 Distribution of Land Uses Within Hamlet Boundaries

The distribution of land uses within the hamlet boundary are summarized in Table 5.2: Land Use Distribution Within Hamlet Boundaries. Within the current hamlet boundary there is approximately 36.03 ha (89.02 ac.) of land. Seventy-six percent of the land is designated as RH - Rural Community, while the remaining 24% is designated AR - Rural District. Under the Rural Community District, residential land uses, parks and other compatible land uses are permitted. At present, there is only residential development within the hamlet with the exception of a few home-based businesses. Only 38% of the land within the hamlet has been developed for residential use, the remaining 62% is comprised of undeveloped lands and, to a lesser extent, municipal and environmental reserve lands. Much of the land that is treed, or in the case of the lakeshore, remains in a generally undisturbed condition. The abundance of open space within the hamlet and its proximity to the lake gives Collingwood Cove a special appeal to residents and visitors.

Land uses within the hamlet are regulated under the provisions of the Strathcona County Land Use By-law. In May, 1994, the Strathcona County Council approved the redistricting of a portion of Block C, Plan 992 NY from AR - Rural District to RH - Rural Community District. This amendment has been incorporated into the information presented in Table 5.2.

Within the hamlet of Collingwood Cove, 23% or 29 of the existing residential lots are presently vacant. Six new single family residential lots are proposed to be developed just east of the playground in 1995. The total housing supply is developed on some 13.82 ha (34.16 ac.) at an overall density of 9.26 units per gross ha. Most lots in Collingwood Cove range in size from (724.6 m²) 7,800 ft² for non-lakefront lots to 1226.3 m² (13,200 ft²) for lakefront lots.

Table 5.2: Land Use Distribution Within Hamlet Boundaries *			
Land Use	Area (Hectares)	Area (Acres)	% of Total Area
RH - Rural Community			
Developed Residential	13.82	34.16	38
Undeveloped	2.90	7.18	8
Municipal and Environmental Reserve Lands	5.28	13.04	15
Roadway Network	5.44	13.44	15
AR - Rural District: Undeveloped Land	8.58	21.20	24
Totals	36.02	89.02	100

* Note: Calculations are measured to the sill elevation.

5.4 Housing

The housing needs in Collingwood Cove have historically been met by single family residences. The supply of housing in the hamlet is estimated to total 92 dwellings, including one mobile home and two derelict cabins. According to Strathcona County assessment records, 59 (64%) of the 92 dwellings are more than 15 years old. Many of the dwellings that are older than 15 years were constructed during the mid to late 1960's and the 1970's. Of the remaining 33 dwellings (29%), 27 of the dwellings were constructed in the last five years suggesting a renewed interest in rural living and lifestyle.

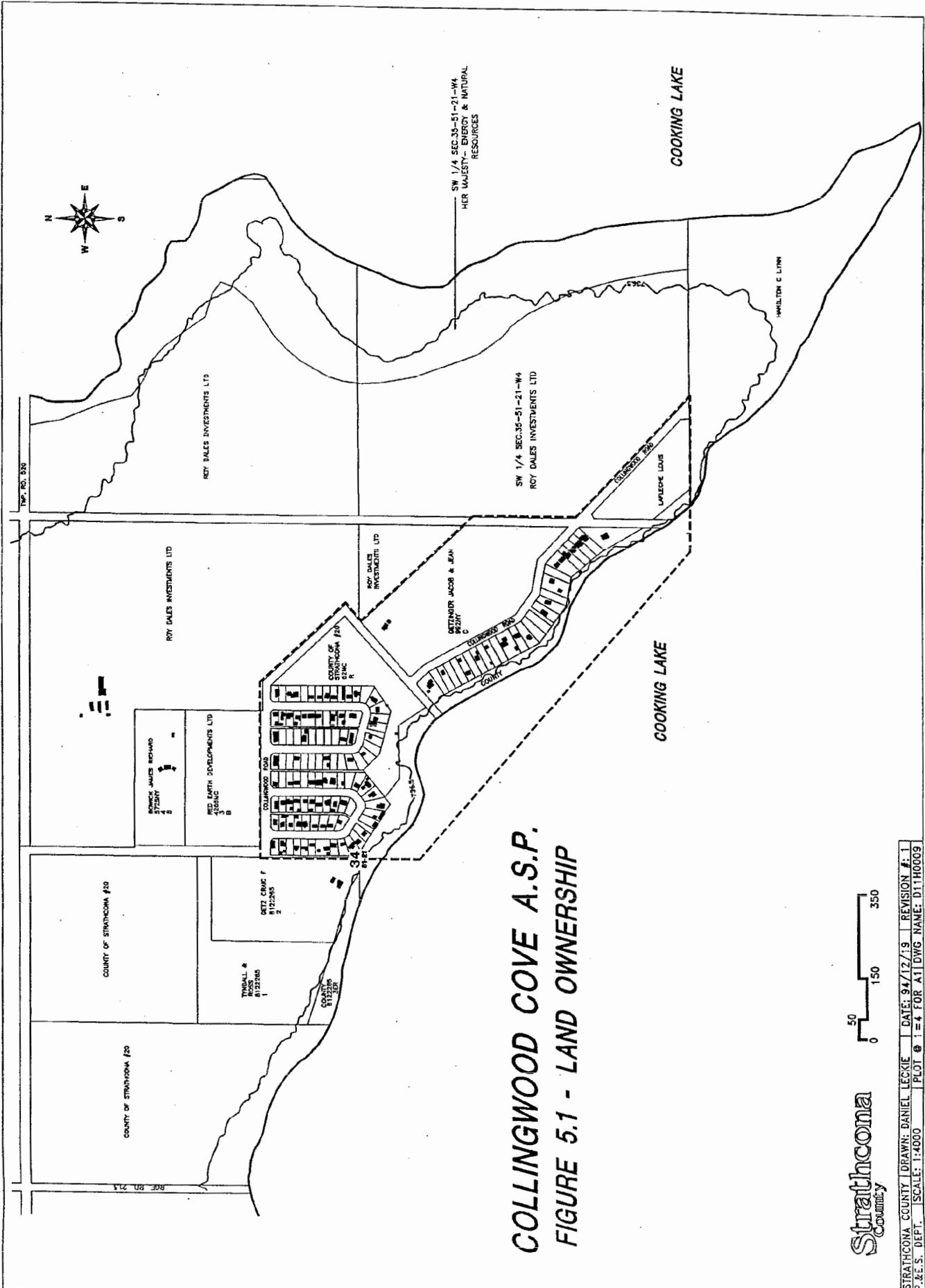
A survey of permanent and seasonal occupancy was conducted by residents in February, 1995. According to the results of the survey, only one of the existing residences was occupied for less than six months of the year, giving a permanent occupancy rate of 99%. This is a 3% increase over a similar survey which was conducted by a Citizens Public Advisory Committee in 1991. The trend toward permanent occupancy in lakefront hamlets has been steadily increasing and is expected to continue over time.

5.5 Land Ownership

Table 5.3: Land Ownership Outside Hamlet Boundaries identifies the area of land owned by individual landowners outside the hamlet boundary. Figure 5.1: Land Ownership shows the land ownership pattern for those lands outside the hamlet boundary. Within the existing hamlet boundaries, there are 11.48 ha (28.38 ac.) of vacant land available for future growth. Within the Plan expansion area, there has been minimal fragmentation of the land base. Those lands outside the hamlet boundaries are controlled by seven different landowners.

Table 5.3: Land Ownership Outside Hamlet Boundaries		
Owner	Legal	Parcel Size
Roy Dale Investments Ltd.	Pt. NE34-51-21-W4th	40.03 ha (98.87 ac)
	Pt. NW35-51-21-W4th	28.32ha (69.98 ac)
	Pt. SW35-51-21-W4th	33.25 ha (82.17 ac)
Getz, Craig F.	Lot 2, Plan 8122265	6.81 ha (16.83 ac)
Tyndall and Ross	Lot 1, Plan 8122265	6.81 ha (16.83 ac)
Bowick, James Richard	Block B, Lot 4, Plan 5725NY	4.04 ha (10.00 ac)
Red Earth Developments Ltd.	Block B, Lot 3 Plan 4266MC	6.07 ha (15.00 ac)
Strathcona County	NW34-51-21-W4th excepting Lots 1 & 2, Plan 8122265	37.73 ha (93.24 ac)
	Roadways	1.29 ha (3.20 ac)
Hamilton, Lynn	Pt. NW26-51-21-W4th	15.18 ha (37.50 ac)
Total Area		179.53 ha (443.62 ac)

Source: Strathcona County, 1995



COLLINGWOOD COVE A.S.P.
FIGURE 5.1 - LAND OWNERSHIP

Strathcona
 Community

STRATHCONA COUNTY | DRAWN: DANIEL LECKIE | DATE: 9/12/19 | REVISION #: 1
 P.&E.S. DEPT. | SCALE: 1:4000 | PLOT # 1-4 FOR A1 | DWG NAME: D11H0009

5.6 Demographic Characteristics

The hamlet of Collingwood Cove with its open space and clean air provides an environment and a lifestyle which has prompted modest but steady population growth over the years. This growth can be attributed to in-migration from the region and natural increase. The hamlet has shown steady growth since 1966, with the exception of a three year period from 1981 to 1984. During this period, the population declined by 4%. This may be partially attributed to a reduced demand for rural residential dwellings during the recession of the early 1980's. For the period from 1984 to 1987, Collingwood Cove had a dramatic increase in population from 113 persons in 1984 to 195 persons in 1987, an increase of 60%. This growth spurt may have been a function of the reduced demand for rural residential during the recession of the early 1980's and a later resurgence in rural development in 1984. Since 1991, the population of Collingwood Cove has grown at a rate of 6.1 persons per year or 2.68% annually.

5.7 Age/Sex Structure

Review of the numerical distribution of the hamlet's population age categories can provide insight into the structural changes in the total population. Such analysis may give some indication of what future changes might be anticipated in the structure and size of a community's population, thereby permitting projections concerning the evolving character and needs of the residents.

Figure 5.2: Age/Sex Distribution 1984/1994 identifies the structural changes in population for the hamlet of Collingwood Cove. The 1984 - 1994 data for Collingwood Cove indicates a significant increase in population in all age categories which corresponds with the increase in total population for the same period. The sex structure of the hamlet for 1994 varies slightly from the 1984 distribution. The male population in the hamlet still exceeds the female population, but the gap between the two increased slightly in 1994.

The greatest change recorded over the 10 year period in any age category is that of the 35 - 44 years old, which from 1984 to 1994 increased by 39 persons and represents a 23% share of the total population.

Another notable population structure change has been the significant decline in the percentage share of the total population of the younger age category (less than 24 years). In 1984, the less than 24 years represented 46% of the total population. In 1994, the same category represented only 38% of the total population. The change in population can be attributed to the cumulative effects of smaller family sizes and the natural aging process.

In 1994 population gains in Collingwood Cove can be attributed to the in-migration of younger couples with young children. Given the effects of natural increase, the hamlet should continue to have modest but steady growth.

Unlike most other lakefront hamlets, the 55 years and older population in Collingwood Cove shows lower than average numbers in the higher age groups. However, within this age category there has been an increase from 4 to 14 persons since 1984 which can be attributed to the natural aging process and a larger population overall. It is further projected that the proportion of the 55 years and older population will continue to increase with the natural aging process. The lower than average numbers in the higher age categories may be partially attributable to Collingwood Cove being a young hamlet, as compared to North and South Cooking Lake.

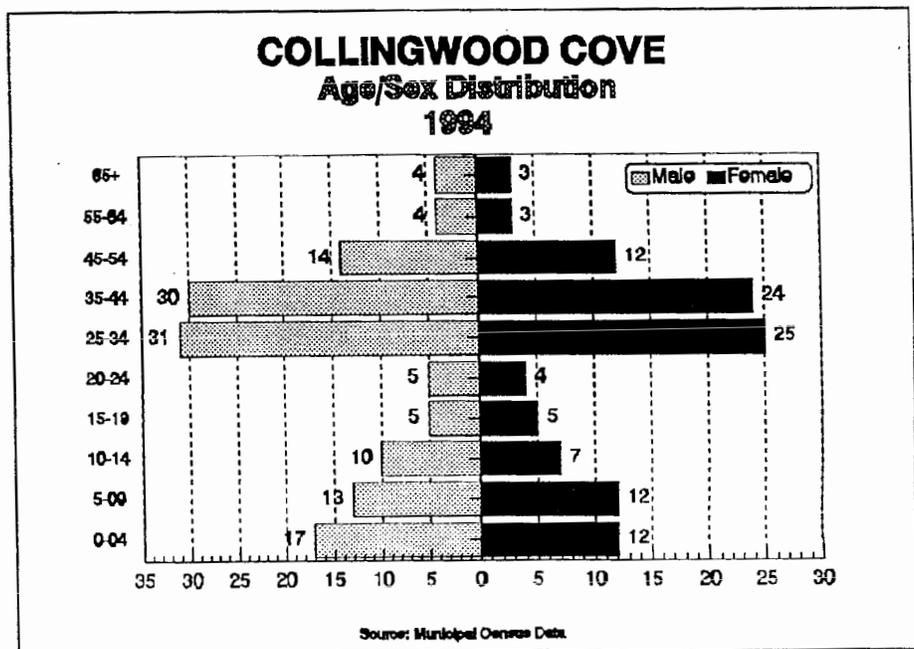
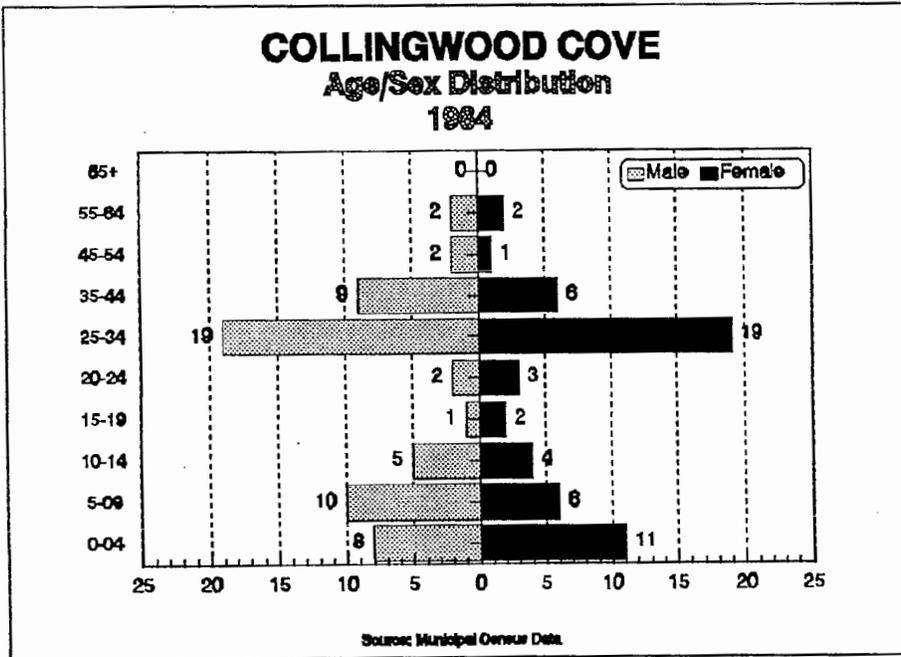


Figure 5.2: Age/Sex Distribution
1984/1994

5.8 Household Characteristics

Figure 5.3: Number of Residents Per Household identifies the change in household size between 1987 and 1994. In 1994, two-person households were the most common type of household with 35%, while four-person households were the second most common type of household with 23% of all categories. The average household size for Collingwood Cove in 1994 was 2.9 persons per dwelling unit, recognizing a vacancy component within the housing supply. This represents a slight decline from the 1987 average household size of 3.4 persons per dwelling unit. In 1987, three- and four-person households were the most common type of household with 46% of all categories. These statistics indicate a demographic transition to smaller families.

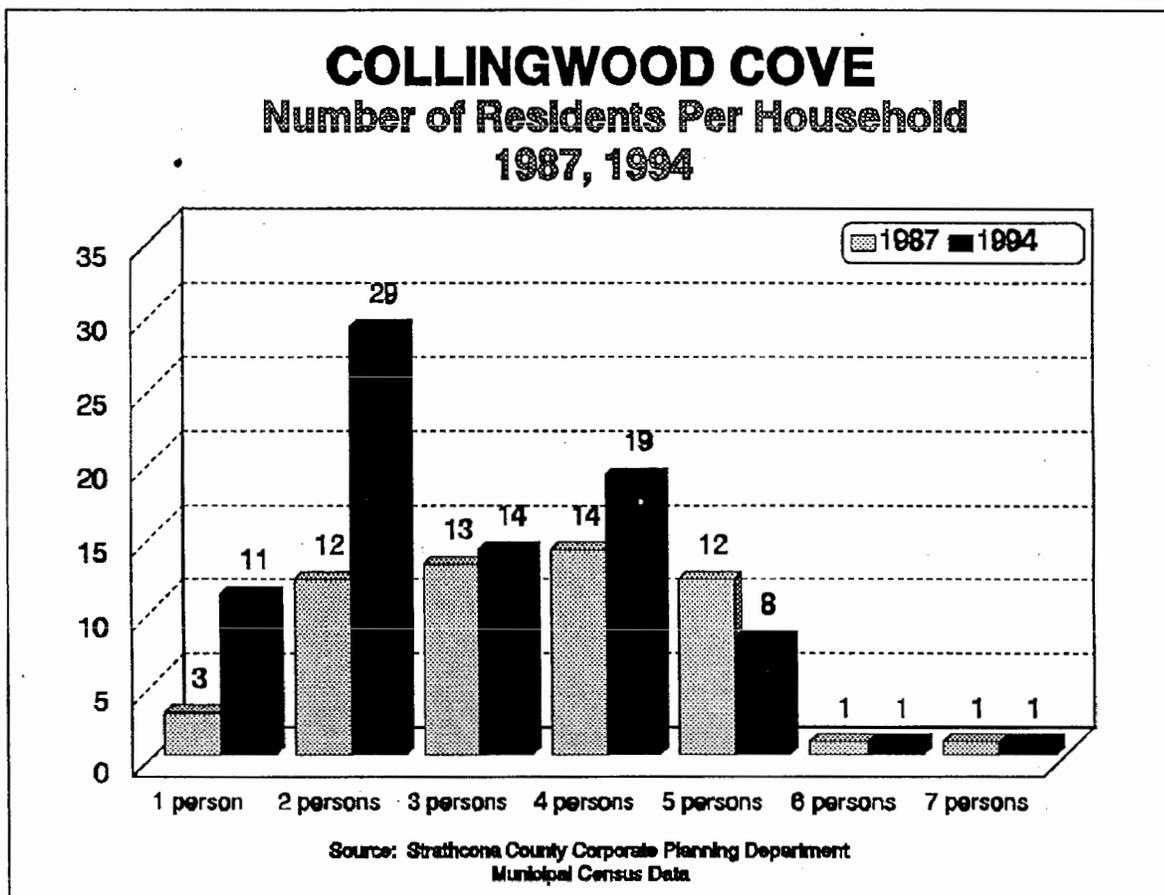


Figure 5.3: Number of Residents Per Household

5.9 Employment Status and Location

Figure 5.4: Employment Status of Residents identifies the employment status for the residents of Collingwood Cove. For the period from 1984 to 1994 the data indicates a significant increase in all employment categories which corresponds with the increase in total population for the same period. The number of persons employed in full time and part time positions increased from 44% in 1984 to 50% in 1994. The most significant change recorded over the 10 year period in any category was in the number of unemployed. The percentage of unemployed rose from 4% in 1984 to 7% in 1994. This may correspond with provincial reductions in employment opportunities and an overall increase in hamlet population.

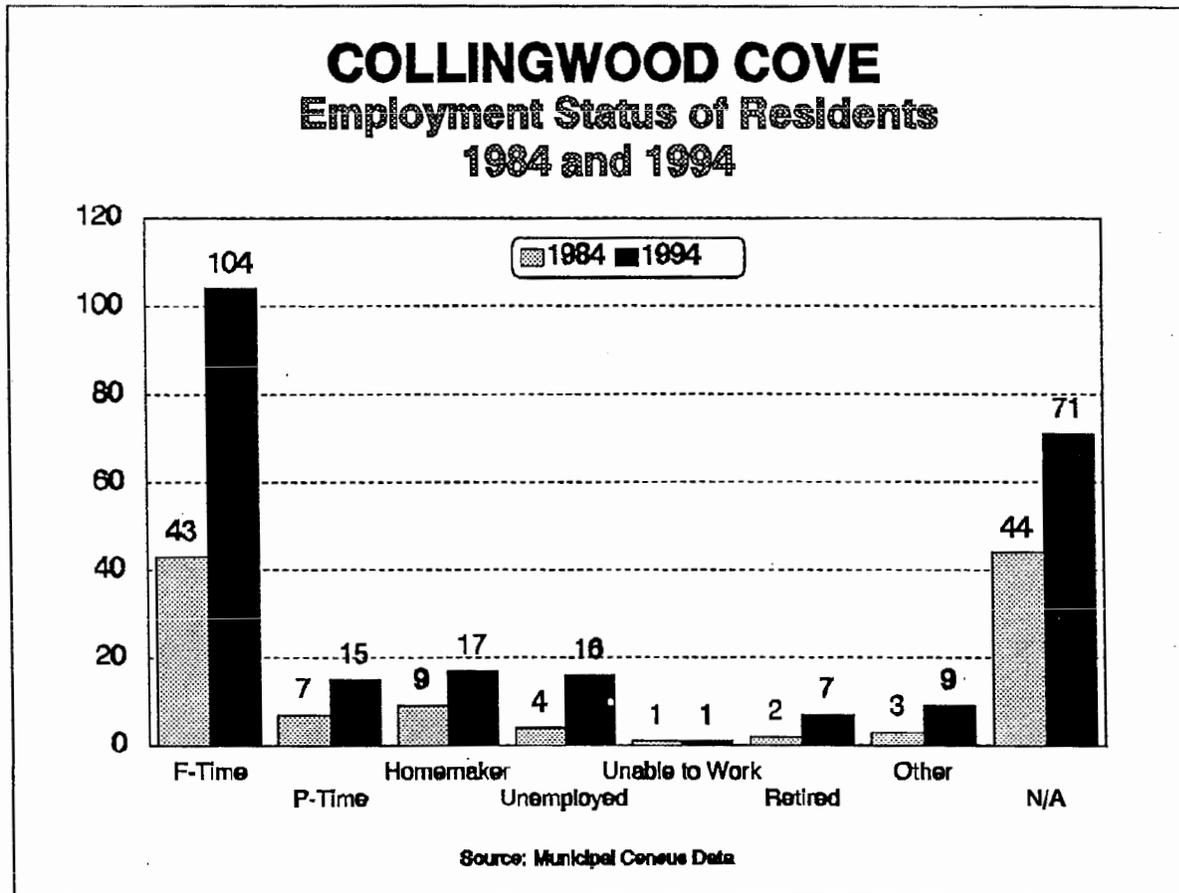


Figure 5.4: Employment Status of Residents

Figure 5.5: Employment Location of Residents identifies the employment locations of the residents of Collingwood Cove. The 1984 - 1994 data for Collingwood Cove indicates a significant increase in the number of urban commuters which corresponds with the increase in total population for the same period. In 1981, Edmonton and rural Strathcona were the predominant places of work. In 1994, the number of persons working in rural Strathcona declined by six persons and the number of persons working in Sherwood Park increased by 17. These figures illustrate the dominance of Edmonton and Sherwood Park as important places of work.

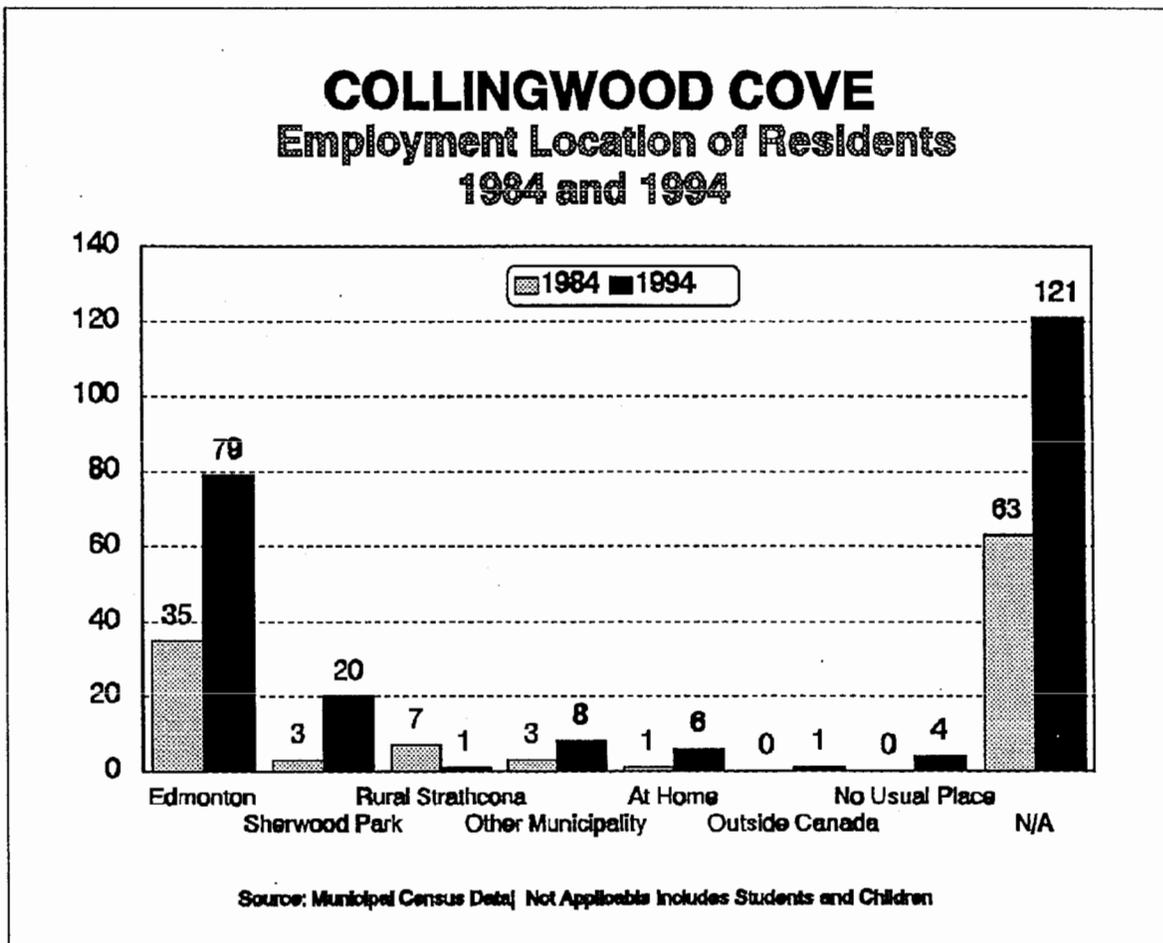


Figure 5.5: Employment Location

5.10 Population and Housing Correlation

New housing demand can be derived from historical population projections. The population projection for the 1994 to 1999 period indicates a 2.68% average growth rate per year or an average of 6.1 persons per year, housed at an overall projected average of 2.9 persons per dwelling unit. New housing demand is projected to average two dwellings per year. It is likely that the preferred housing type will remain single family residential. Figure 5.6: Collingwood Cove Projected Population identifies the projected population for Collingwood Cove. Based on a 2.68% average annual growth rate, the population is projected to reach 265 by the year 1999. Assuming that all factors operating in the past continue unchanged throughout the time period, the projected growth is very reasonable. However, should a water system be installed annual growth rates could be accelerated.

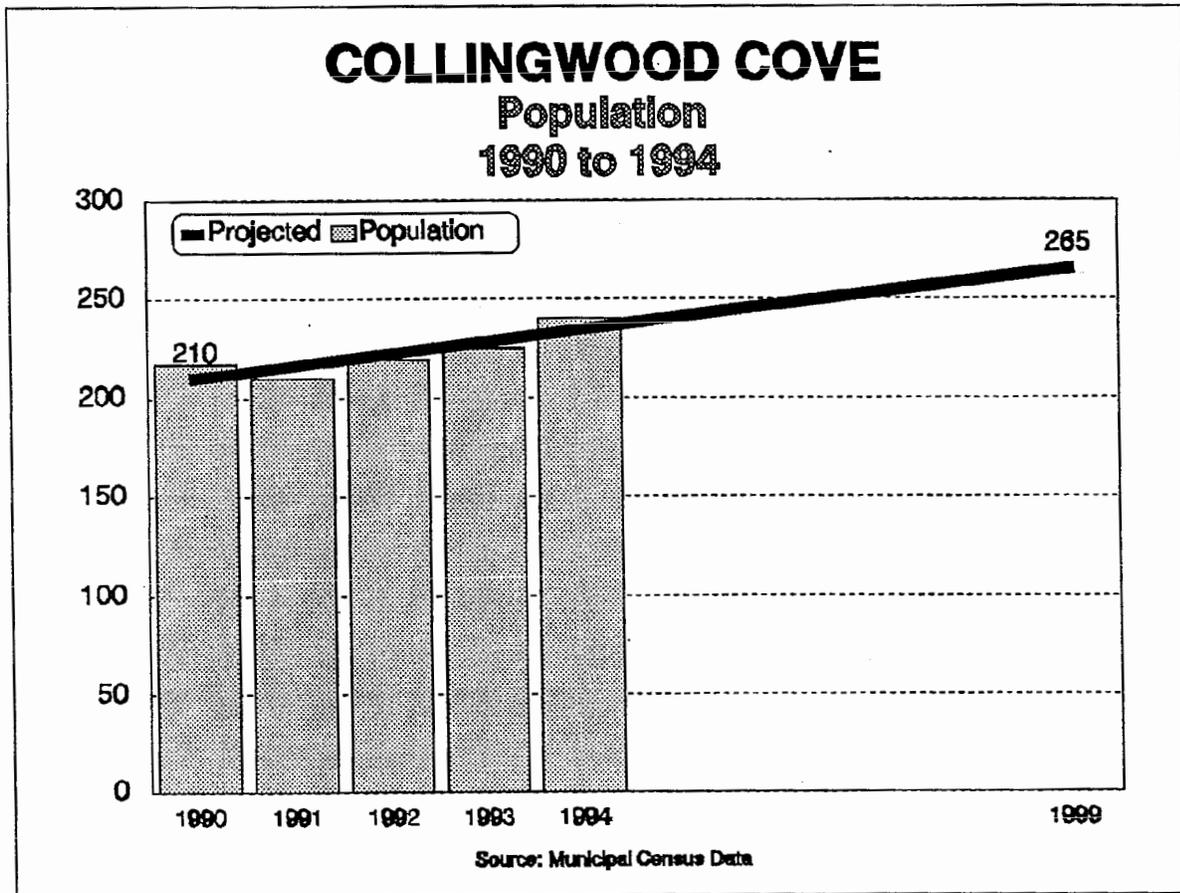


Figure 5.6: Projected Population

6.0 NATURAL FEATURES AND MUNICIPAL SERVICES

6.1 General

In preparing an Area Structure Plan for Collingwood Cove it is necessary to take inventory of both the natural and the manmade factors affecting the Plan area. This section examines factors such as climate, topography and drainage, hydrology, geotechnical assessment, soils, vegetation, services and the transportation corridors that affect the Plan area.

6.2 Climate

The climate of the Collingwood Cove Area Structure Plan area is typically continental with long cold winters and short warm summers. Mean monthly temperatures are below 0° C from November through March. The mean frost free period is 100 days. The mean monthly temperature during January is -17° C. The mean monthly temperature from June through to August is above 15° C (Kathol and McPherson 1975).

The Plan area receives a mean annual precipitation of 500 mm based on records from the Ministik Bird Sanctuary (Anonymous, 1982, Ecological Land Surveys, 1992) which is located 5.6 km due south of Collingwood Cove. Approximately 60% of the precipitation falls during the period from May through to August. July is the wettest month with a mean precipitation rate of 93 mm.

6.3 Topography and Drainage

.1 Regional

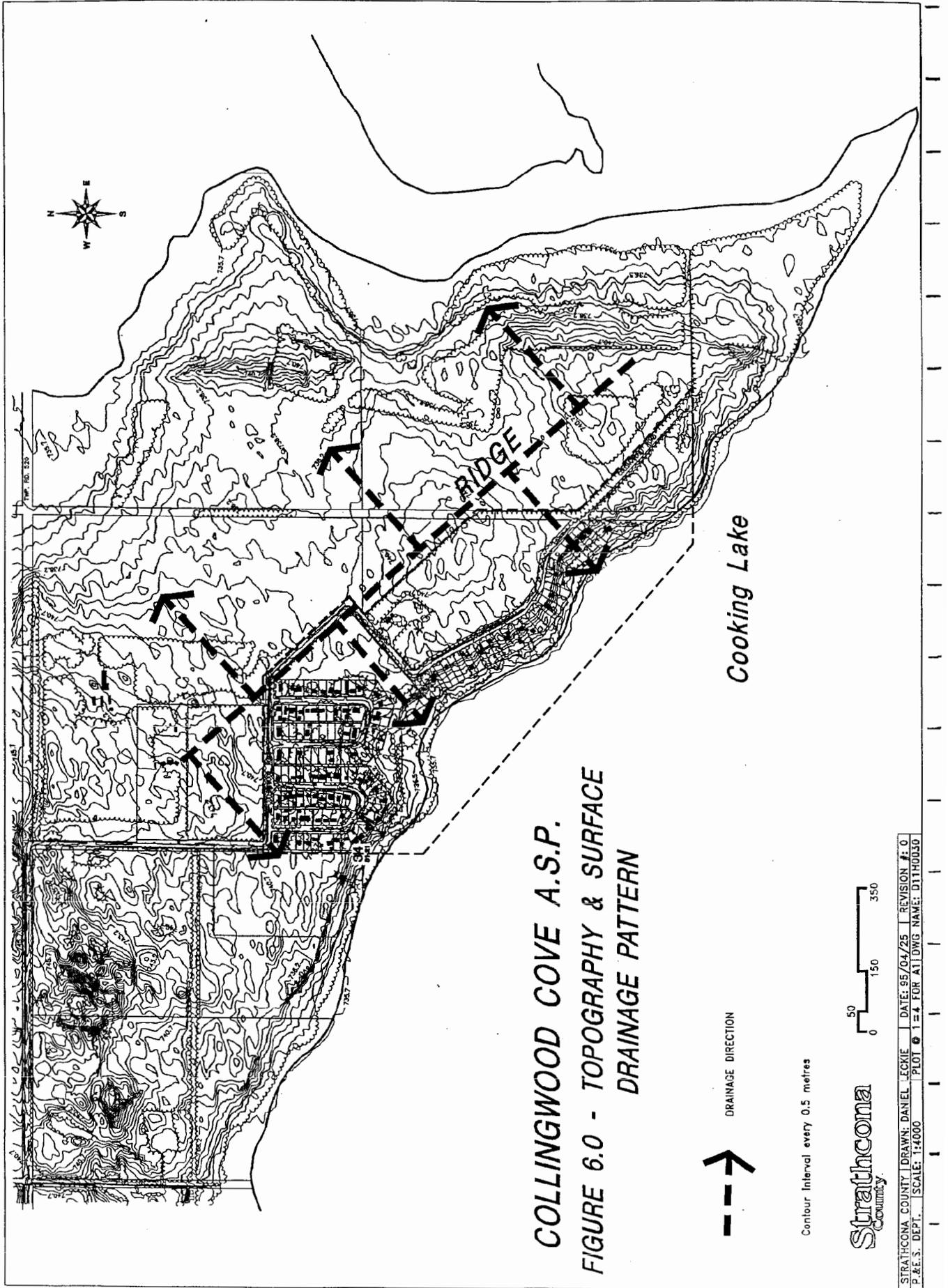
The described lands are situated within the Eastern Alberta Plains Region, Cooking Lake Uplands Subdivision and Beaverhill Upland District physiographic unit (Pettapiece 1986), locally known as the Cooking Lake Moraine. The Beaver Hills Upland is an isolated hill complex of approximately 1,400 km² which is located east of Edmonton. The highest portion of this upland is about 100 m above the surrounding Eastern Alberta Plain. Its topography is characterized by a hummocky morainal surface which contrasts with the gently undulating to rolling, low relief terrain of the surrounding plain.

.2 Local

The topography and general drainage patterns for the Plan area are illustrated on Figure 6.0: Topography and Surface Drainage Pattern. The Collingwood Cove area, which is part of the Cooking Lake Moraine, is characterized by a generally flat to gently rolling topography. Drainage is generally good with a few dispersed pockets of wet, poorly drained land in the NW 34-51-21-W4th and along shoreline areas. Within the Plan area overall, roughly 29.0 ha (71 ac) of land along the lakeshore is occupied by lowland terrain. These areas are associated with surface water ponding, inundation, near surface groundwater levels and/or soft, compressible soils. The degree of constraint increases toward the surface water body.

The Plan area includes a ridge, running from the northwest to the southeast corner which divides the Plan area into two drainage areas. Lands southwest of this ridgeline, as illustrated in Figure 6.0, drain into lowlands which discharge directly into the central basin of Cooking Lake. Lands located northeast of the ridgeline drain into the northeast or third basin of Cooking Lake. Total relief within the Plan area is generally 4.2 m with a high of 740.7 m along the ridge to a low at sill level of 736.5 m above sea level (D.E. Griffiths, 1992, Stanley Associates Engineering Ltd.). Some exceptions to this include the northwest quarter of Section 34, where elevations reach a high of 745.7 m on the north half of the quarter.

Slopes within the Plan area are generally under 4%. There are however, some localized areas in the NW 34-51-21-W4th and along the beach ridge where slopes may reach 10%. The narrow beach ridge runs parallel to the southern lake shore. This ridge rises some 1.8 m (6 ft.) - 3.0 m (10 ft.) above the low flat land on the lakeside. With the exception of some localized areas along the lakeshore, topographic features present no significant limitation to development. Lands located along the lakeshore are associated with surface water ponding, near surface groundwater levels and soft and compressible soils.



COLLINGWOOD COVE A.S.P.
FIGURE 6.0 - TOPOGRAPHY & SURFACE
DRAINAGE PATTERN

---> DRAINAGE DIRECTION

Contour Interval every 0.5 metres

0 50 150 350

Strathcona
 Community

STRATHCONA COUNTY DRAWN: DANIEL LECKIE DATE: 95/04/25 REVISION #: 0
 P.A.E.S. DEPT. SCALE: 1:4000 PLOT # 1-4 FOR A1 DWG NAME: D11H0030

6.4 Hydrology - Surface Water

Cooking Lake's drainage basin is about four times the size of the Lake. Because of a large surface area and shallow mean depth, evaporation is the primary means of water loss. McFadden, Half Moon and Antler Lakes flow intermittently into Cooking Lake via small creeks. The outlet creek, at the east end of the lake, joins Cooking Lake to Hastings Lake during years when water levels are very high. The precise overflow elevation is not known, but water was last known to flow from the lake during the period from 1952 to the mid-1950s when the Lake reached an estimated elevation of 736.7 m (Stanley Associates Engineering Ltd.).

Because of this large surface area the effects of evaporation and runoff are fairly significant. The first record of lake levels was taken in 1897 and estimated an elevation of approximately 738.2 m. Water levels on the lake were recorded regularly for the period from 1956 to 1971 and suggested that the lake level was steadily declining. The elevation of the lake in 1956 was 736.52 m and by 1971 the elevation had dropped to 735.25 m. In 1988, the lake elevation went back up to 736.20 m due to high yearly runoff levels. Since 1974, the long-term downward trend appears to have stopped, and lake levels have remained relatively stable to 1990 (Mitchell and Prepas, 1990).

6.5 Hydrology - Ground Water

The quantity and quality of the groundwater within the Plan area was determined from data received from well driller reports, Alberta Research Council hydrogeological mapping and baseline data, and a McCann and Associates Ltd. assessment of the Cooking Lake area. McCann, in his 1986 Geotechnical Assessment, identified moderate groundwater yields for the Plan area of 0.38 - 0.76 litres/second (5 - 10 imperial gallons per minute). The availability of groundwater was identified in the survey findings and was discussed in the community workshops, which indicated that water quantity was not a concern. Natural groundwater recharge to the area's aquifer may be in the range of 0.4 litres/second per km² (13 igpm/mile²) to 1.1 litres/second per km² (40 imperial gallons/mile²). Given the water supply and the groundwater discharge rates, McCann suggested that development be limited to 25 - 40 lots per quarter section unless there is a municipal sewage system in place. It is also suggested that groundwater monitoring be required in order to confirm the extent of the groundwater recharge to the area so that the long-term reliability of the groundwater supply can be ensured for new subdivisions.

In the workshops and survey findings, residents indicated that water quality was adequate with filtering and treatment. Groundwater quality was also assessed through a number of chemical analyses undertaken by McCann and Associates Ltd. in their 1986 Geotechnical Assessment. The study identified that water wells situated within the locality of the Plan area had undesirable concentrations of certain chemical constituents. The analyses identified high concentrations of sulphates that exceeded the recommended limits and only moderate levels of iron. Within the Plan area sulphate levels were approximately 650 milligrams per litre. It should be noted that the levels recorded represent localized testing. Testing at other wells within the area may identify some differences in sulphate levels.

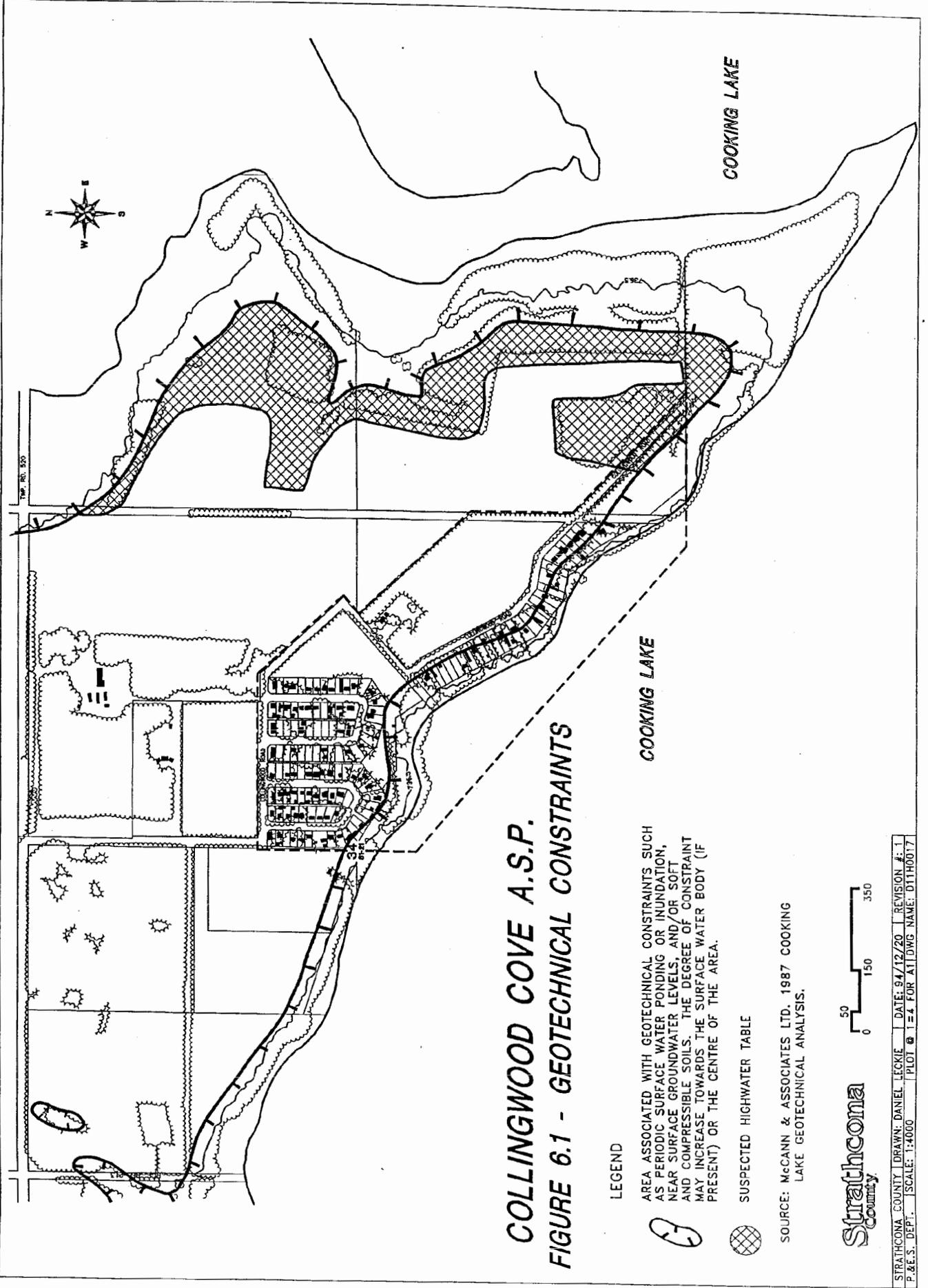
6.6 Geotechnical Assessment

Geological mapping by the Alberta Research Council and the findings of the 1988 Geotechnical Analysis for the Lake Management Plan by McCann and Associates Ltd. form the basis of the suitability analysis for this Area Structure Plan. Geotechnical constraints were identified through detailed analysis of available data, air photo interpretation, on-site inspection and a review of the extent of existing cultivation. The uppermost bedrock beneath the Plan area comprises the shales, sandstones and interbedded coal seams of the Horseshoe Canyon Formation. It is the lower 120 m (400 ft.), approximately, of this Late Cretaceous Formation which underlie the area (Stein, 1982). In places, the shales and sandstones are bentonitic and the coal seams are highly fractured. The area in and around Collingwood Cove is generally underlain in the near surface by glacial silty clay till. The till may be (i) sandy and/or contain sand and gravel lenses, and (ii) be overlain by lacustrine silty clay deposits in places (McCann and Associates Ltd., 1988).

Figure 6.1: Geotechnical Constraints identifies those areas which are underlain by or associated with soft/wet, compressible soils, near-surface groundwater levels, and/or periodic surface water ponding or inundation. Generally, these constraint areas are associated with the near-shore areas of Cooking Lake together with some localized areas in the NW 34-51-21-W4th. Figure 6.1 also identifies some areas that were identified through a recent aerial photo analysis and are suspected to have a high water table. It noted the above referenced conditions may create relatively costly problems during construction of buildings, underground utilities, roads and/or parking lots.

The information presented in this Plan is acknowledged to be preliminary in nature. The geotechnical delineations noted in Figure 6.1 are felt to be acceptable for Area Structure Plan purposes. However, it is suggested that any development within or immediately adjacent to these areas should be preceded by relatively detailed geotechnical and environmental investigations, prior to subdivision, in order to design for or avoid problem conditions.

Based on the geotechnical analysis, all other areas inside the near-shore area of Cooking Lake would seem to be relatively constraint free.



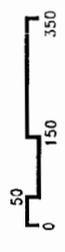
COLLINGWOOD COVE A.S.P.
FIGURE 6.1 - GEOTECHNICAL CONSTRAINTS

LEGEND

 AREA ASSOCIATED WITH GEOTECHNICAL CONSTRAINTS SUCH AS PERIODIC SURFACE WATER PONDING OR INUNDATION, NEAR SURFACE GROUNDWATER LEVELS, AND/OR SOFT AND COMPRESSIBLE SOILS. THE DEGREE OF CONSTRAINT MAY INCREASE TOWARDS THE SURFACE WATER BODY (IF PRESENT) OR THE CENTRE OF THE AREA.

 SUSPECTED HIGHWATER TABLE

SOURCE: McCANN & ASSOCIATES LTD. 1987 COOKING LAKE GEOTECHNICAL ANALYSIS.



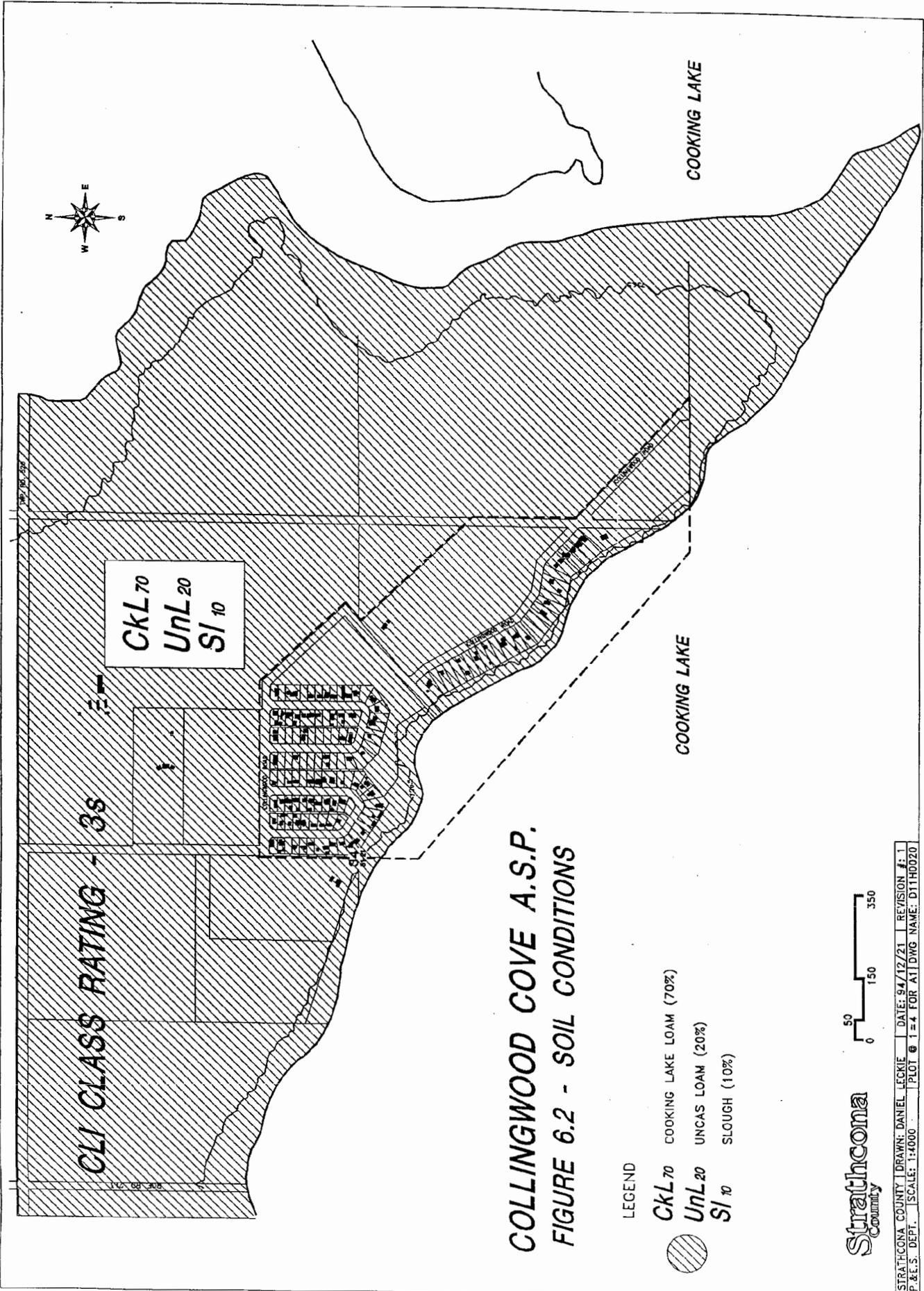
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6.7 Soils

Figure 6.2: Soil Conditions shows the Canada Land Inventory Soil Capability and the Alberta Soil Survey Report No. 21 information for the Plan area. Soils within the Plan area are classified as Podzolic soils under the Alberta Soil Survey. The Plan area is comprised of 70% Cooking Lake Loam (CkL), 20% Uncas Loam (UnL) and 10% Slough (Sl). The Slough category is included to account for the many small marshes that are too small to be individually distinguished on the map. Soils in this category would include organic and Gleysol soils.

The Cooking Lake Loam has moderate limitations for roadway development and construction of permanent buildings due to soil texture that affects strength, shrink swell potential and frost heave. The limitations for these types of development increase and can be rated as high where the area is characterized by poor drainage. The permeability of Cooking Lake Loam subsoil is moderate to moderately low. The typical development limitations of Uncas Loam are similar to Cooking Lake Loam in that both have moderate permeability.

The Canada Land Inventory Soil Capability Map classifies the Plan area as Class 3_s with a farmland assessment of 15%, having moderately severe limitations that restrict the range of crops. The subject soils are not considered to be "Better Agricultural Land" under the definition of the Strathcona County General Municipal Plan and, therefore, are not subject to the better agricultural land policies. The soil limitations include low permeability, low natural fertility and high salinity levels resulting in some restrictions to crop production. The soil survey states that there are stones throughout the formation. Although this type of soil does not present a constraint to development, detailed analysis should take place at the tentative plan stage.



COLLINGWOOD COVE A.S.P.
FIGURE 6.2 - SOIL CONDITIONS

- LEGEND
-  CkL₇₀ COOKING LAKE LOAM (70%)
 -  UnL₂₀ UNCAS LOAM (20%)
 -  Sl₁₀ SLOUGH (10%)



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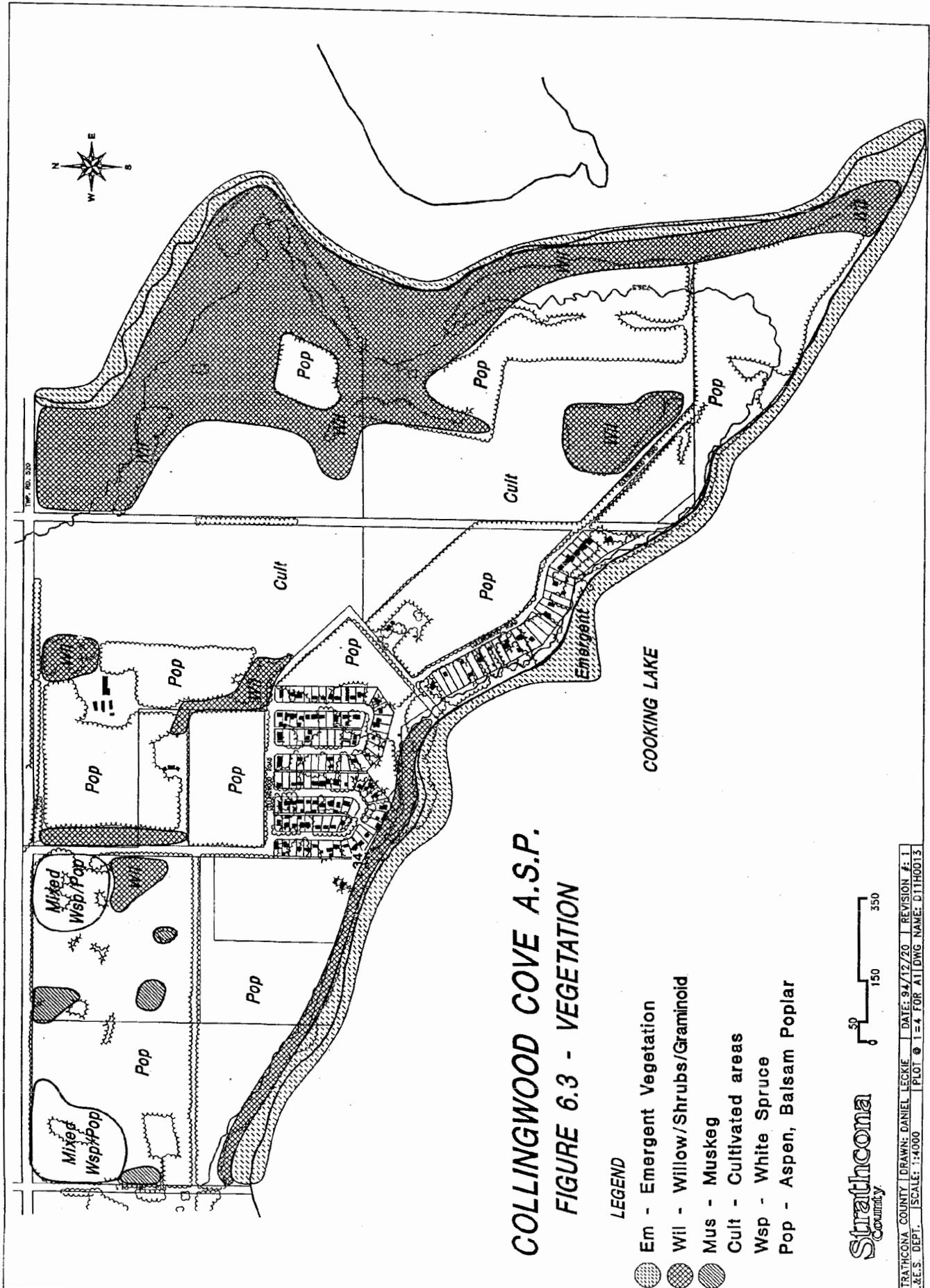
6.8 Vegetation

The local flora in the uplands is characteristic of the Southern Boreal Mixedwood Ecoregion. Generally, the forested areas are at an early successional stage due to the influences of fire, agriculture and residential development since the start of this century. At present the predominant tree cover is Trembling Aspen and Balsam Poplar. Woody understorey species include Beaked Hazelnut, Pincherry, Saskatoon, Red Osier Dogwood, Highbush Cranberry and Prickly Rose. Herbaceous understory species include Sarsparilla, Vetch sp., Aster sp., Twin Flower, Canada Anemone, Bunchberry. Grasses include Wild Rye, Wheatgrass, and Fescue. The climax forest species of the uplands in this area would be White Spruce. Small remnant stands exist in the larger forested tract in the NW 1/4 34-51-21-W4.

The lowlands adjacent Cooking Lake contain a typical mix of Willows, Grasses and Sedges. Emergent vegetation along the lake shore includes Sedges, Spike Rush, Rush, Bulrush and Cattail.

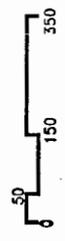
Disturbed areas including residential lots and agricultural lands have been planted with non-indigenous plant species. Canada Thistle has become established in the overgrazed pasture lands in the area.

There are six endangered, rare or threatened plant species known to exist in the subject lands through the literature reviewed (D.E. Griffiths, 1992). Some of those within the area include Green-flowered wintergreen, Groundpipeclub moss, Leather Grape-fern, Meadow Milk-vetch, Indian pipe and Wood rush.



COLLINGWOOD COVE A.S.P.
FIGURE 6.3 - VEGETATION

- LEGEND**
- Em - Emergent Vegetation
 - Wil - Willow/Shrubs/Graminoid
 - Mus - Muskeg
 - Cult - Cultivated areas
 - Wsp - White Spruce
 - Pop - Aspen, Balsam Poplar



Strathcona
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6.9 Wildlife

The corridors identified in Figure 6.4: Existing Wildlife Corridor Routes are used by a limited number of plant and animal species that frequent the Plan Area on a seasonal or resident basis. The Area Structure Plan is sympathetic to the provision of corridors in and through the Plan area to provide safe and unrestricted movements.

As with other parts of Strathcona County, White Tailed Deer are the predominant ungulate species with a small resident population of moose. Mule deer have also been observed in the area but it is not known how stable the population is or whether they are transient in the area. Suspected Elk signs have been noted in the surrounding area, however no confirmed sightings have been made (D.E. Griffiths, pers. com., 1995).

Coyote, Porcupine, Badger, Richardsons Ground Squirrel, Striped Skunk, Short-tail Weasel, Snowshoe Hare, Pocket Gopher, Meadow Vole, and Redbacked Vole are common to the area. Muskrat are the predominant semi-aquatic mammal, however, populations have diminished drastically primarily due to the low lake levels (D. Griffiths, pers com, 1994). Beaver are known to inhabit the lake, however these appear to be in reduced numbers presumably due to low water levels.

There are three endangered, rare or threatened mammal species known to occur in the subject lands through the literature reviewed (D.E. Griffiths, 1992). They include the Pygmy Shrew, Northern Flying Squirrel, and Mule deer.

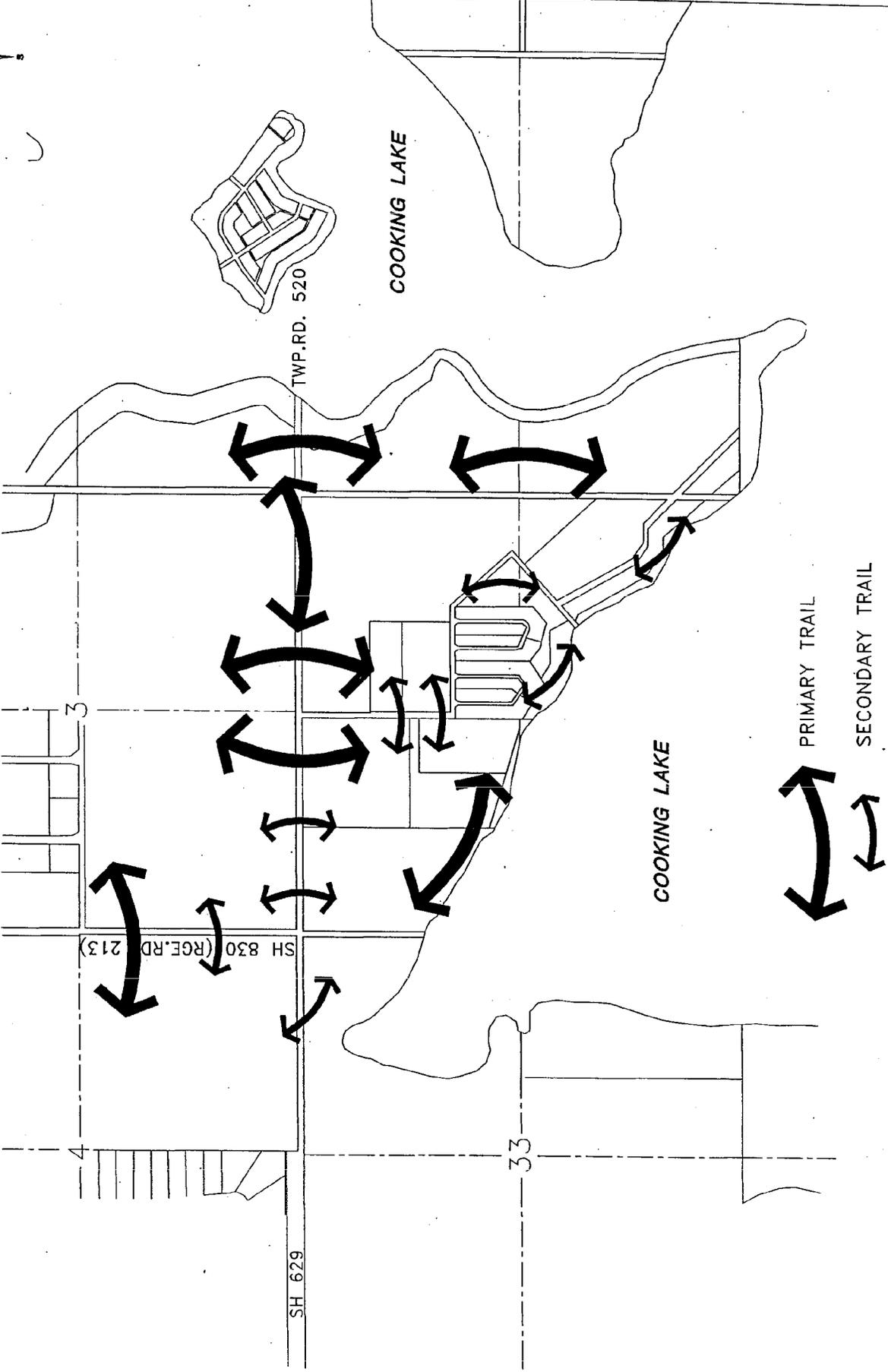
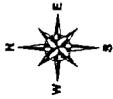
Due to the diversity of habitat, a broad spectrum of waterfowl, shorebirds, forest and grassland birds are known to occur during the summer and in-migration. A typical assortment of year-round residents exist. Cooking Lake is a provincially significant wetland complex and is important for waterfowl staging and production (D.E. Griffiths, 1987; Alberta Fish and Wildlife Key Area Map, 1981). Zelt and Glasgow (1975) indicate that as many as 275 bird species can be expected to occur in the Cooking Lake study area.

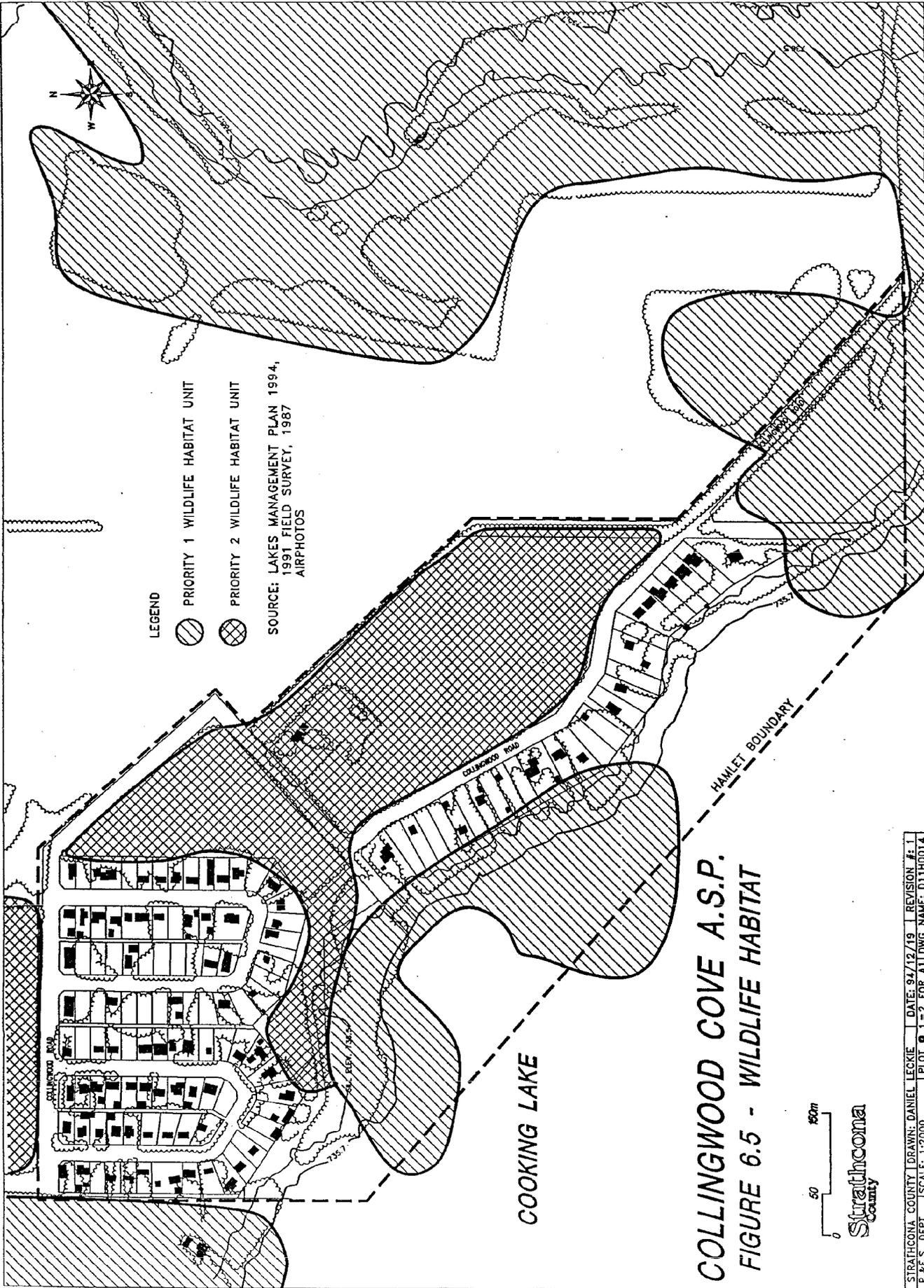
There are six endangered, rare or threatened bird species known to inhabit the subject lands through the literature reviewed (D.E. Griffiths, 1992). They include the Cooper's Hawk, Cinnamon Teal, White-winged Scotter, American Bittern, Black-billed Cuckoo and the Great Crested Fly-Catcher. Bird migration may result in the appearance of other species in this category throughout the year. However, most are spotted during the spring and fall on route to the southerly wintering areas and northerly breeding grounds.

Amphibians are represented by the Tiger Salamander, Wood Frog, Boreal Chorus Frog and the Canada Toad. The only reptile known to occur in the area is the Red-Sided Garter Snake.

No sport fish exist in Cooking Lake. In 1963, Brook Sticklebacks were netted in low numbers (Kerekes, 1965).

**COLLINGWOOD COVE A.S.P.
 FIGURE 6.4 - EXISTING WILDLIFE CORRIDOR ROUTES**





STRATHCONA COUNTY | DRAWN: DANIEL LECKIE | DATE: 94/12/19 | REVISION #4:1
 P.&S. DEPT. | SCALE: 1:2000 | PLOT # 1=2 FOR ALL DWG. NAME: D11H0014

6.10 Ecological Significance

Agriculture, primarily grazing and forage production, occurs to the immediate north and west of the Plan area. Figure 6.6: Eco-Site Inventory identifies the land forms and plant communities which characterize the Plan area.

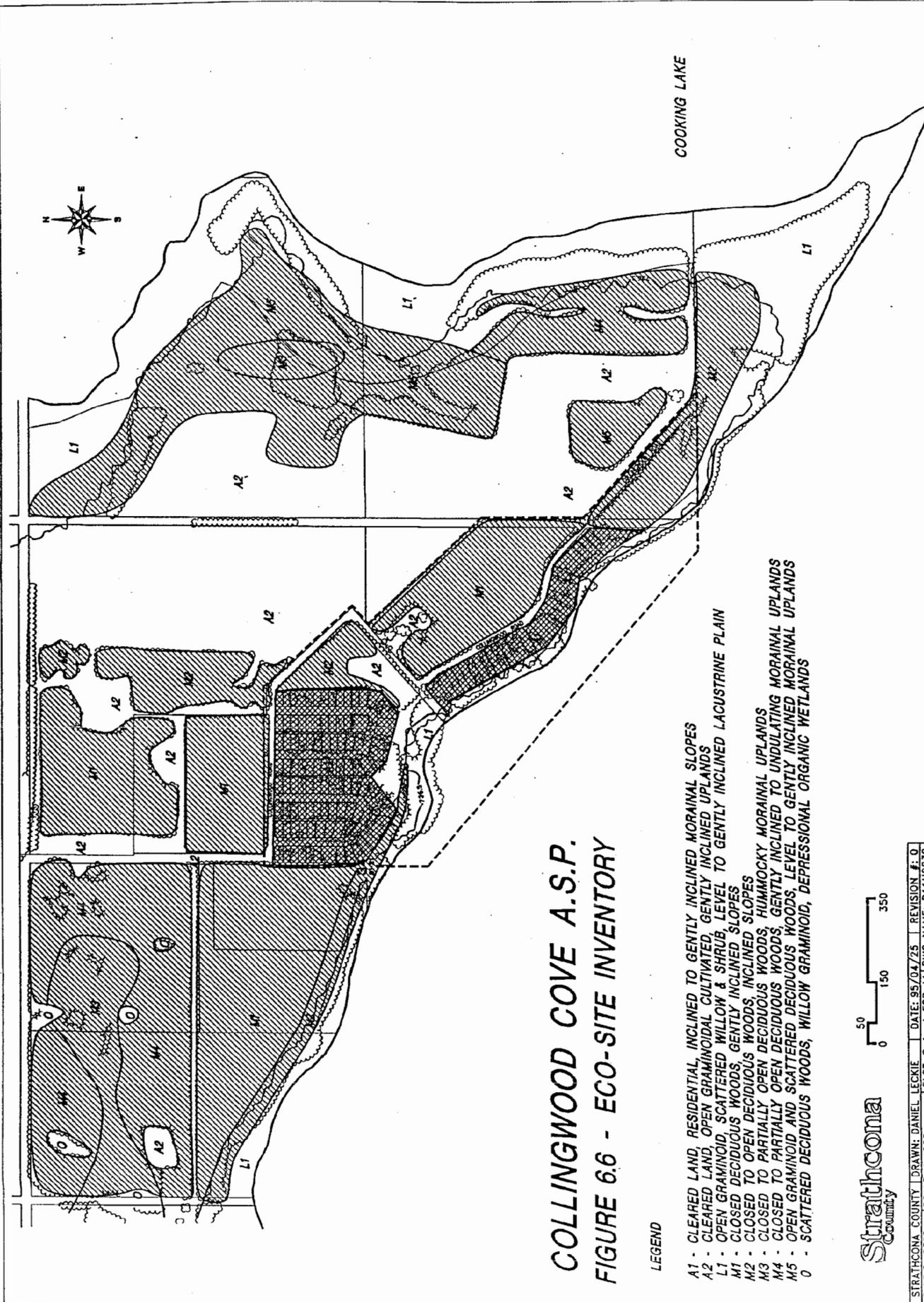
Cooking Lake has been identified as an environmentally sensitive area of provincial significance, particularly for waterfowl habitat (Infotech, 1989). Environmental sensitivity is an evaluation of land performance in response to surface disturbance, and environmentally sensitive lands are sensitive to disturbance due to one or more of the following characteristics (Westworth and Knapik, 1987).

1. A very high susceptibility to erosion if disturbed,
2. severe limitations to revegetate, and
3. distinctive or unusual landforms and plant and animal communities important locally, regionally or nationally.

The ecological significance of Cooking Lake is that it is a key component in the very important production, moulting, staging and migration complex for waterfowl in the Cooking Lake Moraine. The riparian habitat is considered to have high sensitivity to disturbance, therefore the assessment of development proposals should stress habitat protection to maintain the high wetland values (Infotech, 1989).

The land west and east of the hamlet is significant as a corridor for the migration of wildlife. There are four primary consequences from the disruption of wildlife corridors and resulting fragmentation of wildlife habitat (American Planning Association, 1994).

1. Species that depend on a minimum size of habitat will suffer when left with only isolated patches of woods or ground cover. Some species are uniquely sensitive to specific types of habitat and are likely to disappear when a particular terrain or type of plant life is destroyed.
2. Species that require more extensive ranges for breeding and food sources become lost when the links within that range are severed resulting in disoriented animals roaming through populated areas.
3. Alien or common species begin to dominate the local environment. While there is nothing wrong with many of these species as such, their dominance tends to diminish the overall bio-diversity of the local environment.
4. Severed links in the migration corridors increase the inbreeding within local populations within local wildlife species, weakening them and increasing the likelihood of their decline over a period of time.



COLLINGWOOD COVE A.S.P.
FIGURE 6.6 - ECO-SITE INVENTORY

LEGEND

- A1 - CLEARED LAND, RESIDENTIAL, INCLINED TO GENTLY INCLINED MORAINAL SLOPES
- A2 - CLEARED LAND, OPEN GRAMINOIDAL CULTIVATED, GENTLY INCLINED UPLANDS
- L1 - OPEN GRAMINOID, SCATTERED WILLOW & SHRUB, LEVEL TO GENTLY INCLINED LACUSTRINE PLAIN
- M1 - CLOSED DECIDUOUS WOODS, GENTLY INCLINED SLOPES
- M2 - CLOSED TO PARTIALLY OPEN DECIDUOUS WOODS, INCLINED SLOPES
- M3 - CLOSED TO PARTIALLY OPEN DECIDUOUS WOODS, HUMMOCKY MORAINAL UPLANDS
- M4 - CLOSED TO PARTIALLY OPEN DECIDUOUS WOODS, GENTLY INCLINED TO UNDULATING MORAINAL UPLANDS
- M5 - OPEN GRAMINOID AND SCATTERED DECIDUOUS WOODS, LEVEL TO GENTLY INCLINED MORAINAL UPLANDS
- O - SCATTERED DECIDUOUS WOODS, WILLOW GRAMINOID, DEPRESSIONAL ORGANIC WETLANDS

Strathcona
 County



STRATHCONA COUNTY DRAWN: DANIEL LECKIE DATE: 95/04/25 REVISION # 0
 P.&E.S. DEPT. SCALE: 1:4000 PLOT # 1-4 FOR A1 DWG NAME: D1TH0032

Through field reconnaissance, literature review and RCMP accident documentation, the movement of ungulates was tracked through the area and specific corridor locations can be recommended. Due to the constrictions presently in place it is of high importance to provide corridors for wildlife movement through and around the development area. This can best be achieved by providing and maintaining corridors linking the lands east of the subject lands to the lands west including NW 1/4 34-51-21-W4. Opportunities for corridors exist along the lake shore, non developable lands, and in creating separation buffers between residential areas.

6.11 Historical Resources

The Archaeological Survey of Alberta requires that a historic and archaeological assessment be undertaken at the subdivision approval stage and appropriate measures be applied to protect any significant features which may be found.

6.12 Municipal Services

This section reviews the existing water, sanitary sewer and storm drainage systems within the hamlet of Collingwood Cove. The provision of municipal services will influence the extent and speed of future residential development. It is expected that commuter access and other factors will continue to attract a level of residential development commensurate with the hamlet's ability to provide economical housing.

.1 Water System

The hamlet presently obtains its water supply from wells and/or cisterns. Within the hamlet there are 83 households on wells, 8 households on cisterns and 2 households with both wells and cisterns. Workshop and survey findings indicated that residents generally felt that there was sufficient water and that the well water was adequate provided it was filtered and treated. The 1988 Geotechnical Analysis for the Lakes Management Plan, prepared by McCann and Associates Ltd., indicated that the private wells in Collingwood Cove ranged in depth from 3 m - 67 m (10 ft. - 220 ft.). Approximately 35% of the wells are less than 30 m (100 ft.) deep and 62% are between 30 - 60 m (100 - 200 ft.) in depth. Pump tests conducted by McCann and Associates, suggest that if a 35 m spacing between wells were maintained, the wells may yield 165 -195 m³/day, however, the groundwater supply potential would only be capable of meeting the current average and peak day requirements. In addition, a review of water sample results of Collingwood Cove by the Leduc Strathcona Health Unit indicated that the water was soft, had a high iron content, and that there were moderate amounts of sodium and low levels of sulphates and fluoride. The above information suggests that dependency on well water for average size hamlet lots may be unsuitable for future hamlet expansion. Therefore, before further development can proceed more detailed testing must be undertaken in order to confirm the reliable, long-term groundwater supply in this area.

There is currently no County policy to extend piped water to Collingwood Cove as the hamlet is within a franchise area for which Canadian Utilities has exclusive rights to service. However, Canadian Utilities is bringing piped water into Antler Lake, therefore there is an opportunity to oversize the Antler Lake reservoir to allow for the future servicing of Collingwood Cove. Tie-in for the residents of both hamlets will be on a voluntary basis. For those that tie-in to the system there will be a one-time connection fee payable to Strathcona County for their contribution to development of the reservoir and the supply line. In addition, there will also be fees payable to Canadian Utilities for initial connection and a monthly charge for water. Residents would be responsible for their own cistern, jet pump, and installation of the service line from the property line to the house.

.2 Sewage Collection System

Figure 6.7: Sewage System outlines the sanitary sewer collection system existing in the hamlet. The sanitary sewage system in Collingwood Cove is a gravity system. The collection piping system has a minimum size of 200 mm (8") diameter entering into the lift station located at the end of Larkspur Crescent. The lift station collects the flows and pumps the sewage to the sewage lagoon site which is located approximately 1.5 km west of the community in the SE 33-51-21-W4th. The lagoon in Collingwood Cove is an evaporation lagoon and has a surface area of approximately 13.5 ha (33 ac). The lagoon in Collingwood Cove was designed for a population of 500 with a per capita sewage volume of 360 lpcd (80 Igpcd). The evaporation lagoon was designed to hold three years sewage volume. The existing sewer system can be expanded to accommodate future development within the existing hamlet boundaries. Further development beyond the existing hamlet boundaries will require prudent review at each stage to evaluate lagoon capacity and determine whether further development can be accommodated. Table 6.0: Average Daily Effluent Flows/Capita identifies the daily effluent flows for Collingwood Cove.

.3 Storm Drainage System

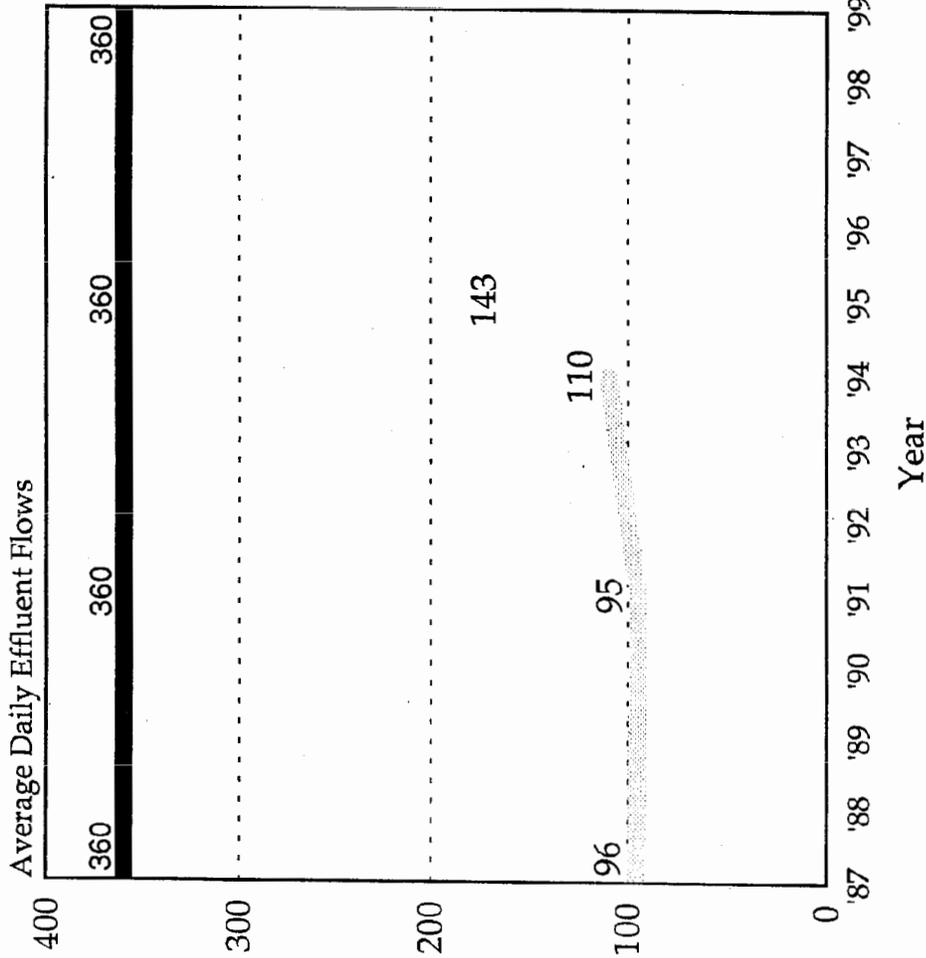
At present, the hamlet does not have a comprehensive stormwater management system. There is little paved area in the hamlet and the water is either absorbed into the ground or collected in ditches or swales where it is eventually dissipated.

.4 Utility System

The hamlet of Collingwood Cove is served by Northwestern Utilities Ltd. for natural gas supply, AGT Ltd. for telephone service and TransAlta Utilities Corporation for power.

COLLINGWOOD COVE

Average Daily Effluent Flows Per Capita

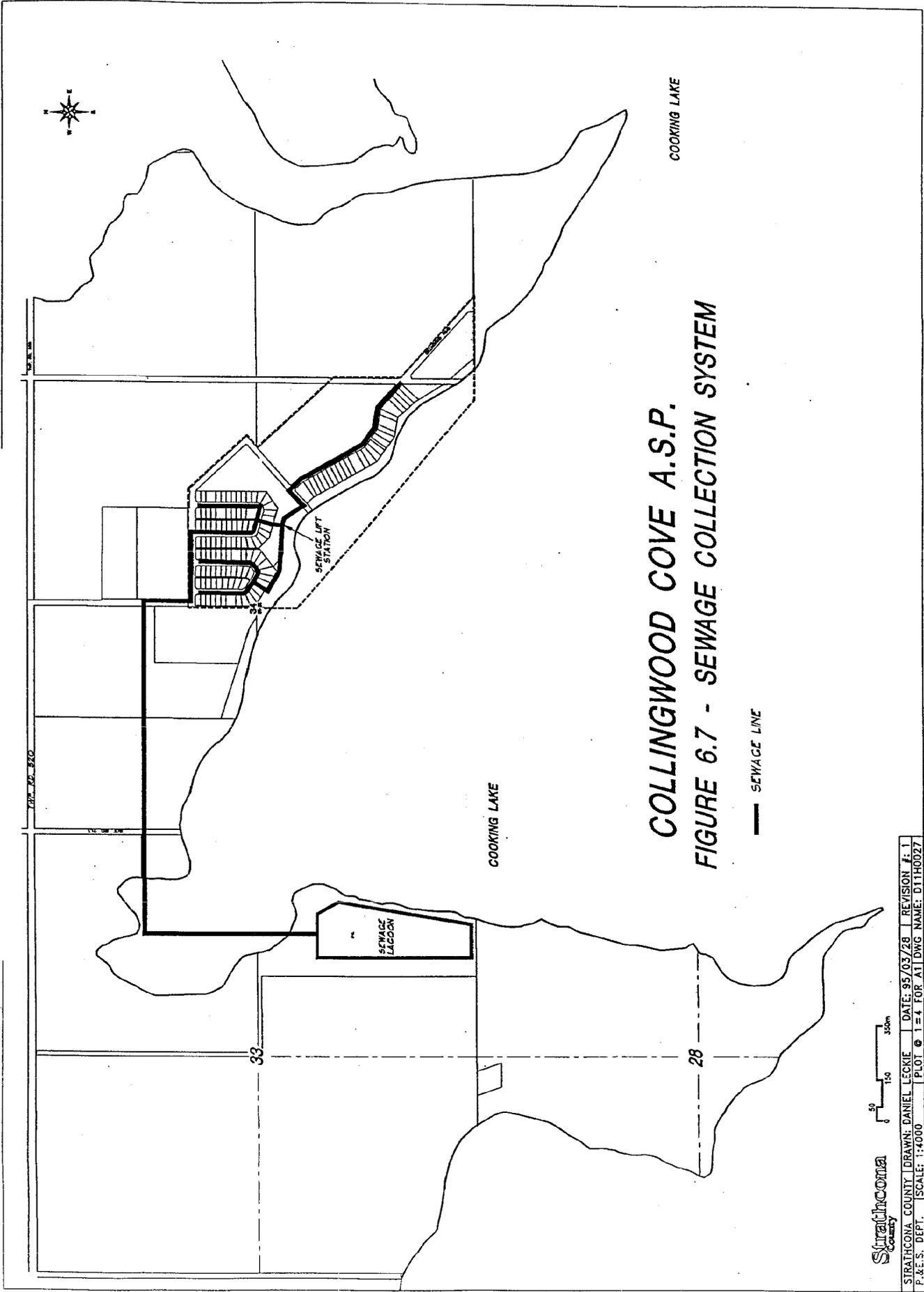


The data presented in Table 6.0 was received from Strathcona County, Environmental Operations. The table identifies the average daily effluent flows per capita in Collingwood Cove. Average daily per capita flows were determined by dividing the average daily effluent flows for the year by the population for each respective year. The chart illustrates a steady increase in the average daily effluent flows per capita for Collingwood Cove over the last eight year period including a significant jump in effluent flows in 1994. In 1995 we will be investigating the efficiency of the pump.

Average Daily Effluent Flows
 Design Capacity Per Day

As identified earlier, the Collingwood Cove sewage lagoon was designed for a population of 500 residents at 360 liters per day. In addition, the evaporation lagoon's design capacity is capable of holding three year's sewage volume. Given the data presented in the table, per capita effluent levels are well below the actual design capacity of 360 liters per capita per day.

Table 6:0 Average Daily Effluent Flows Per Capita



Strathcona County
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6.13 Transportation Network

The principal road accesses serving Collingwood Cove are Secondary Highway 830 north of the hamlet and Secondary Highway 629 west of the hamlet. Secondary Highway 830 provides direct access to Wye Road and thereby connects the hamlet to Sherwood Park to the west and North Cooking Lake to the east. Under the Rural Roads Master Plan, Secondary Highway 830 from Secondary Highway 630 to Secondary Highway 629 is identified for possible de-designation and Secondary Highway 629 from Secondary Highway 830 to Secondary Highway 824 is identified for possible de-designation or re-designation. The possible de-designation or re-designation of these sections of highway is not considered to be a constraint to further development in the hamlet. These secondary highways are not currently a high priority within the County.

The hamlet's internal transportation network is comprised of Collingwood Cove Road, an east/west collector roadway which links the lakefront lots on the east end of the hamlet with the lots located on Larkspur and Rosewood Crescents, two local streets, in the northwest end of the hamlet. The hamlet's internal roadway network generally meets the cellular concept of development and thereby reduces the amount of through traffic on local streets with the exception of the lakefront lot area where lots access directly onto the roadway. It is noted that traffic conflict along Collingwood Cove Road will become an increasing problem if direct vehicular access from individual lots onto Collingwood Cove Road is continued in an uncontrolled manner.

The existing collector allows for only one access in and out of the hamlet at the northwest corner of the hamlet. The fact that there is only one access into the hamlet will become more critical as the hamlet grows, and the number of people using one access route increases.

Roadways within Collingwood Cove have a 5.0 to 7.0 m wide cold mix surface in a 20 - 25 m right-of-way. Traffic counts undertaken by the County for Secondary Highway 629 and Secondary Highway 830, indicate that on average the hamlet of Collingwood Cove has 400 vehicles per day on existing roadways. The average daily traffic volumes of 400 vehicles per day may be equated to an a.m. peak hour traffic volume of 40 vehicles per hour. Two lane local roadways within the hamlet are considered to have a capacity of approximately 1,000 vehicles per hour. The volume to capacity ratio for roads in Collingwood Cove is 0.04. A road is considered to be at capacity when the volume to capacity ratio is 1.00.

7.0 FUTURE TRENDS

7.1 Growth

Determining future growth patterns and estimating the demand for further development in Collingwood Cove is difficult given the small sample of comparable communities within the area, and the variability of economic factors influencing development. However, through the past decade, Collingwood Cove has maintained a modest but steady growth pattern. This is directly attributable to its ability to provide a rural lifestyle which Edmonton and Sherwood Park commuters find conveniently close to employment and economically attractive from a housing standpoint. Moreover, should the community's infrastructure be improved in accordance with the growth hamlet strategy, it is reasonable to assume that residential development and population could increase slightly.

Using linear regression it is possible to project population growth to the year 1999 by using historical growth rates. The results of this projection are illustrated in Figure 7.0: Collingwood Cove Projected Population. Using a 2.68% average growth rate or 6.1 persons per year, the population is projected to reach 265 by 1999 and may be accelerated if water servicing is installed. Although this provides some indication of future growth trends, it must be recognized that changing local and/or provincial economic conditions and the employment situation can often result in large discrepancies between theoretical expectations and future realities.

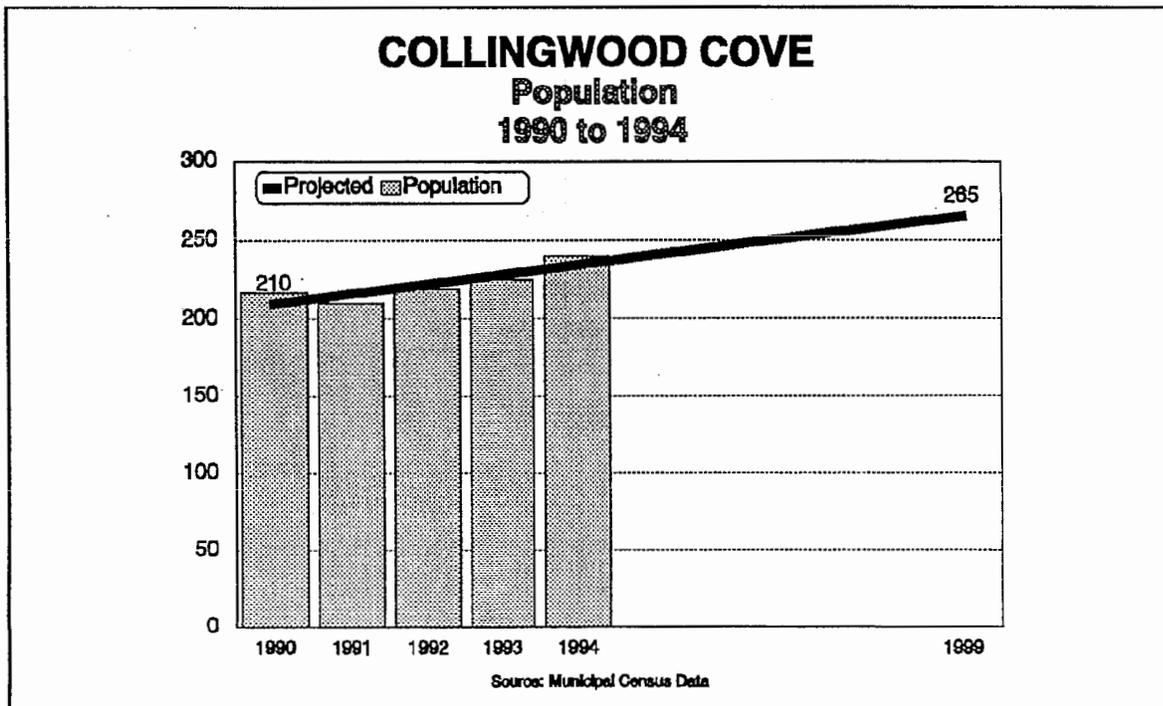
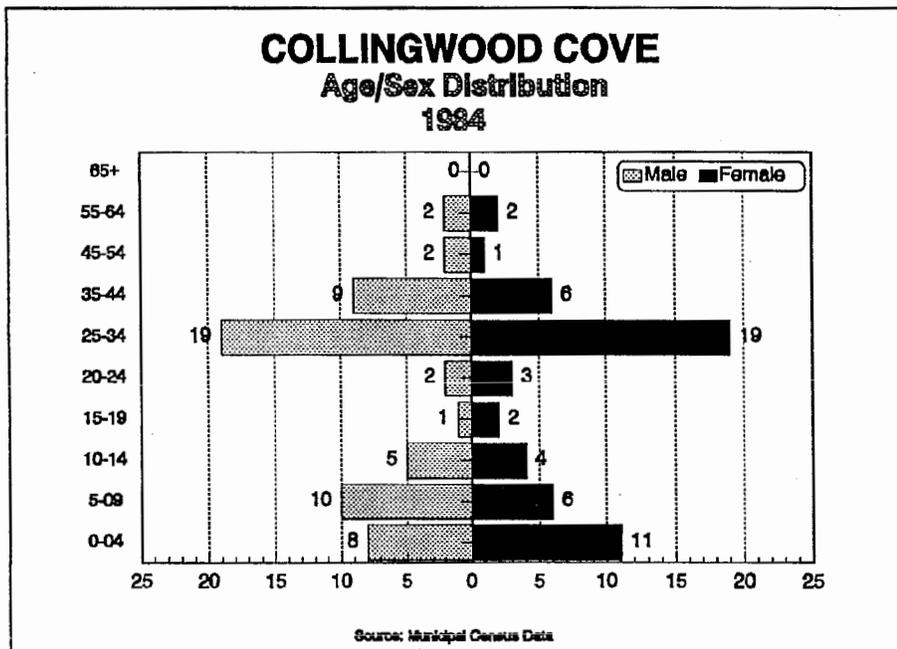


Figure 7.0: Projected Population

7.2 Changing Demographics

The hamlet is changing in terms of age structure. It is attracting a larger percentage of the younger, working population. Age/sex distribution statistics for the 1984 to 1994 period as identified in Figure 7.1: Age/Sex Distribution 1984/1994 indicate the number of individuals in each age category. Generally, there has been increased growth in all age categories due to corresponding increases in population, with the largest amount of growth apparent in the 25 to 44 age categories. For the period from 1984 to 1994 the actual number and percentage share of the total population of the 25 - 44 age categories increased dramatically. The 25 - 44 age categories increased by 60 persons. The 25 - 44 age category represents a 46% share of the total population. The increase in this age category can be attributed to two factors: 1) the recent in-migration of 25 - 44 year-old couples who have been attracted to the hamlet because of economically attractive housing and natural lifestyle and 2) the natural aging process.

As with all municipalities, Collingwood Cove will experience an aging trend beyond the turn of the century. However, given the large percentage share of the total population represented by child bearing age groups, it is assumed that the hamlet could look toward a stable period of modest growth in the future.



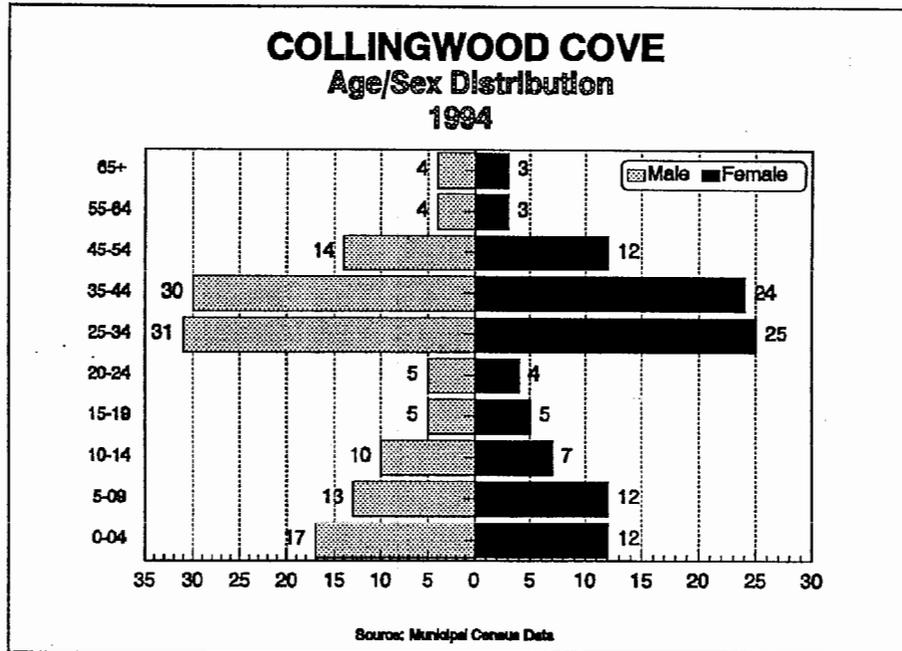


Figure 7.1: Age/Sex Distribution 1984/1994

7.3 Environment

Within the hamlet of Collingwood Cove there is a growing public awareness and concern for the protection and preservation of the physical environment. During the public participation process, environmental concerns and issues were repeatedly identified as those of highest priority. Residents believe that the beauty and quality of the hamlet's physical environment give it its character and distinctiveness. Concern has been expressed over the potential extent of development and how further growth may impact on natural areas, wildlife habitat and the overall quality of life. It is clear that environmental concerns will continue to be an area of priority with the public. Consistent with this environmental focus, there is a community interest in the preservation of wildlife habitat areas, waterfowl staging areas and increased park and open space within the hamlet.

7.4 Summary

Collingwood Cove is considered attractive for lifestyle, strategic and economic reasons. Collingwood Cove is within close proximity to the Edmonton/Sherwood Park market. It already has a sewer system in place and is within the Canadian Utilities franchise area. In addition, the mix of forests, lakes, wetlands and rolling farmland create an attractive setting for rural living or visiting. Moreover, there are many recreational opportunities within a few minutes drive of Collingwood Cove. These factors, as well as a growing relatively young child-bearing population are likely to result in a modest demand for housing in Collingwood Cove in the future.

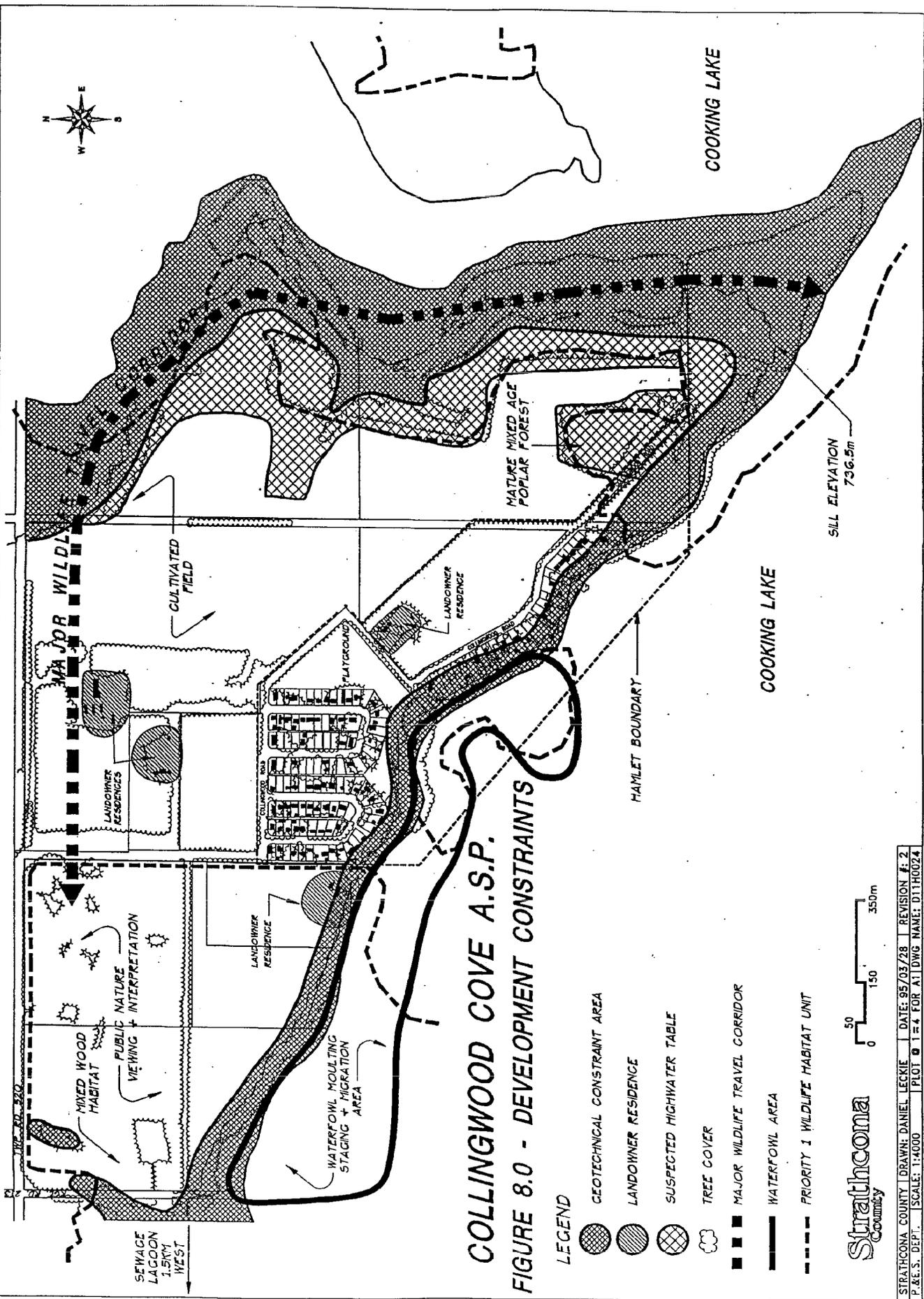
8.0 SITE ANALYSIS

8.1 Development Constraints

Potential constraints to development within the Plan area include:

1. Areas of geotechnical constraint including soft/wet compressible soils, near-surface groundwater levels and/or periodic surface water ponding or inundation. Approximately 13% of the Plan area may be unsuitable for development due to geotechnical constraints. Most of these areas relate to the near-shore areas of Cooking Lake, however there are also some localized areas in the NW 34-51-21-W4th. While it is possible that development could occur within the areas identified in Figure 8.0: Development Constraints, development costs could render development prohibitive. The extent of the limitation must be determined through detailed geotechnical analysis and service costing as part of the subdivision planning.
2. Areas that are to be protected because of their environmental sensitivity and/or significance. These areas include a major wildlife travel corridor which runs from the southeast corner of the Plan area to the northwest corner of the Plan area; a regionally significant waterfowl breeding and staging area in the southwest corner of the Plan area; a wildlife habitat/mature forest in the NW 34-51-21-W4th and the shoreline areas throughout the Plan area. The community has identified the need to establish a sufficient setback from the edge of the tree cover to form a shelterbelt capable of withstanding blowdown and providing sufficient separation between the shoreline and future development.

Once the constraints to development have been mapped, the overall development potential within the Plan area becomes more obvious. Figure 8.1: Development Potential identifies those areas within the Plan area that have development potential.



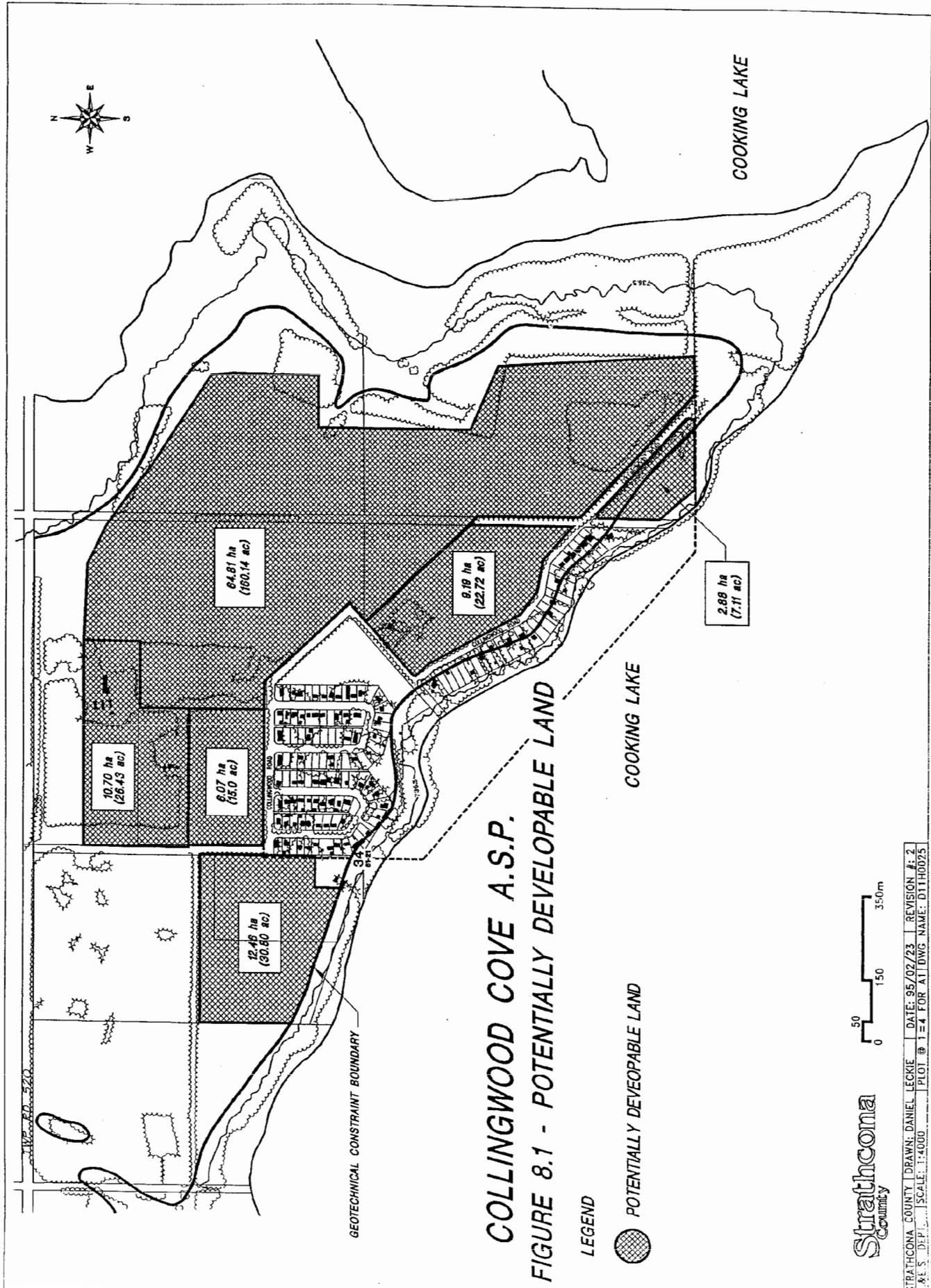
COLLINGWOOD COVE A.S.P.
FIGURE 8.0 - DEVELOPMENT CONSTRAINTS

LEGEND

- GEOTECHNICAL CONSTRAINT AREA
- LANDOWNER RESIDENCE
- SUSPECTED HIGHWATER TABLE
- TREE COVER
- MAJOR WILDLIFE TRAVEL CORRIDOR
- WATERFOWL AREA
- PRIORITY 1 WILDLIFE HABITAT UNIT

Strathcona
 Community

STRATHCONA COUNTY DRAWN: DANIEL LECKIE DATE: 95/03/28 REVISION #: 2
 P.&E.S. DEPT. SCALE: 1:4000 PLOT # 1-4 FOR ALL DWG. NAME: D11H0024

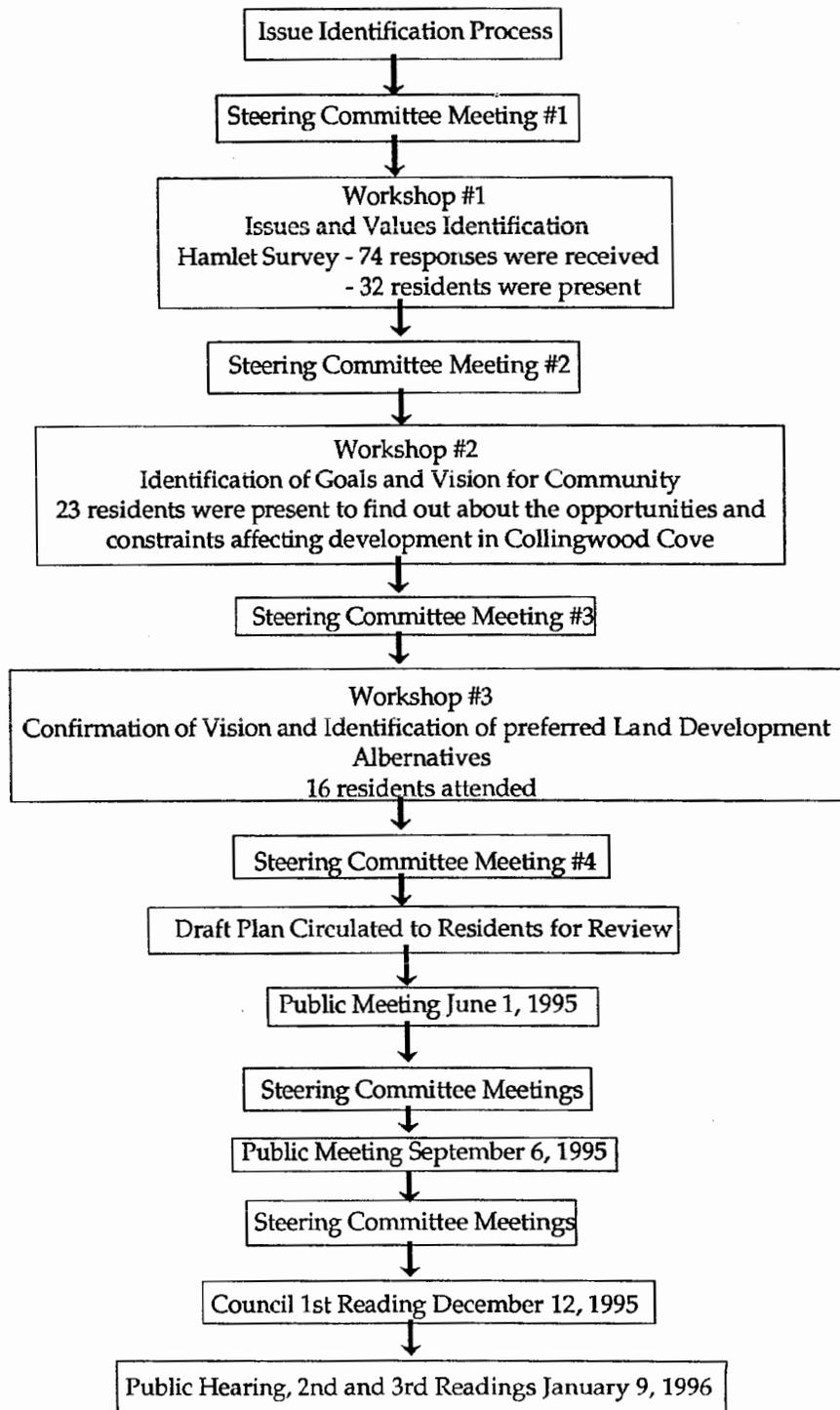


COLLINGWOOD COVE A.S.P.
FIGURE 8.1 - POTENTIALLY DEVELOPABLE LAND

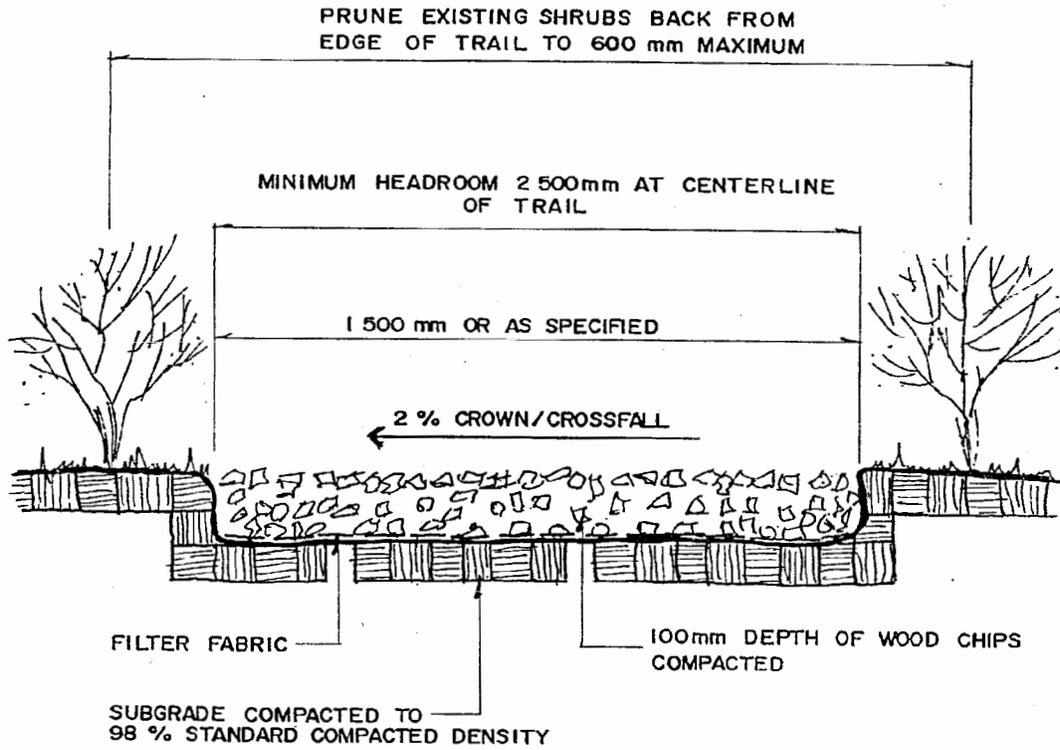
9.0 PUBLIC INVOLVEMENT

The public participation process conducted for the Collingwood Cove Area Structure Plan provided residents and landowners with an opportunity to provide input into the type and extent of future development. At the onset of the study, a steering committee comprised of seven residents was established. The primary responsibility of the steering committee was to deal exclusively with the planning process. This included arranging committee meeting dates, distributing information to other committee members and residents and acting as a communication link between the County and the residents. Near the end of the process the steering committee acted as content expeditors by helping resolve outstanding final draft issues. The steering committee worked with the County to coordinate the timing and number of meetings and to ensure that the process would involve as many residents of Collingwood Cove as possible. There were several avenues for citizen involvement throughout the process (the opportunities for involvement are identified below). Residents were encouraged to think about what really matters to them and what they felt was too important in their community to lose or compromise.

Collingwood Cove Public Input Process



APPENDICES



Strathcona
County
RECREATION, PARKS
AND CULTURE

DATE Feb 88

DRAWN

APPROVAL

APPROVAL

DRAWING

Hiking Trail
With Bark Chips

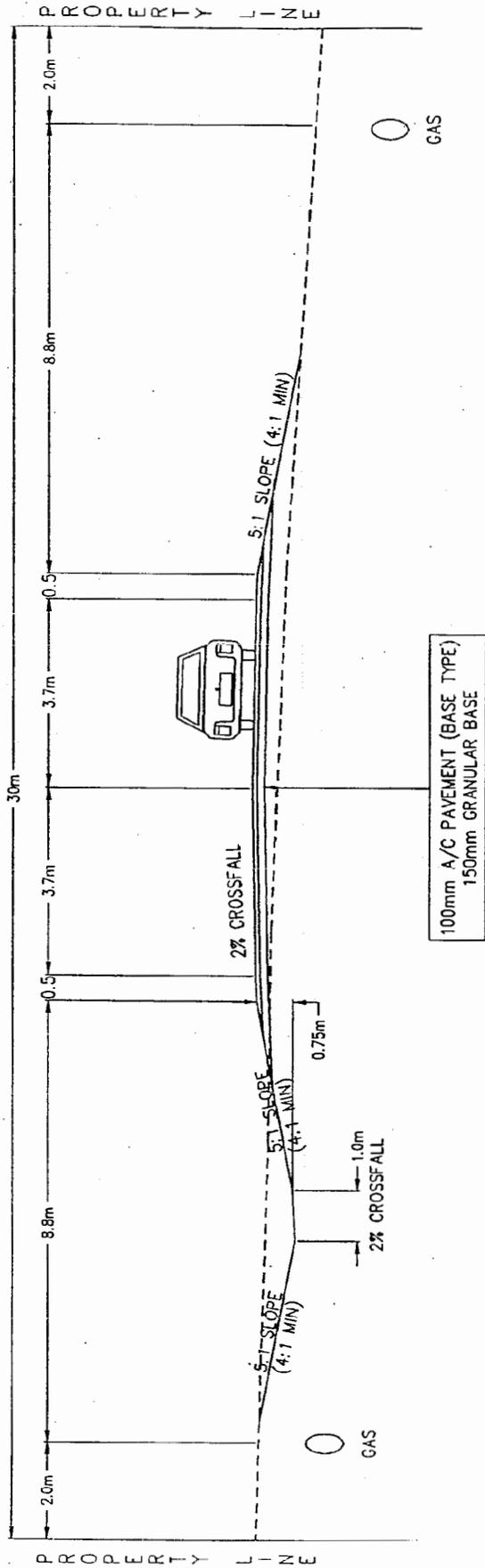
SCALE

n t s

DRAWING NUMBER

TYPICAL CROSS-SECTION - COUNTRY RESIDENTIAL ROADWAY 30.0m RIGHT-OF-WAY

Appendix 2.0



STRAITHCONA COUNTY PLANNING & ENGINEERING SERVICES DEPARTMENT DRAWN: RICHARD DEKKER, C.E.T. DATE: 95/07/12 SCALE: H=1:125 V=1:125 PLOT 1 FOR 8.5x11 REVISION: # 0 DWG NAME: B---A0050

RESULTS OF COMMUNITY PLANNING WORKSHOP #3 SUMMARY

April 11, 1995

The purpose of the final Workshop was to get those attending the meeting to identify their preferred future growth scenario for Collingwood Cove. This involved actually drawing maps to show the preferred types and locations for land uses. Staff also presented four different concept plans. Each plan showed a different arrangement of land uses which were based on the results of the surveys, the past two Workshops and the technical opportunities and constraints discussed at Workshop #2.

Each of the three working groups were asked to pick out those features they liked or did not like in each of the four concepts and then draw their preferred alternative on an overhead transparency. Each group then presented their concept plan to the entire audience.

Staff wrote down the important features of each group's concept plan on a flip chart and collected the overhead transparencies and any additional notes the groups had prepared. The planning staff analyzed the results, looking for common features to be considered in preparing the draft plan.

Workshop Results:

There were several recurring features noted by the groups. These are explained as follows and are also drawn on the attached map.

- The retention of major wildlife corridors and waterfowl areas and the protection of shoreline areas was supported by all three groups.
 - All groups agreed that the western extension, west half of Section 34-51-21-W4th, was the least acceptable for growth and that the old growth forest be retained.
 - It was generally felt that a secondary access was not necessary at this time.
 - The general feeling by all groups was that growth be "limited".
 - It was generally felt by all work groups that the southern tip of Stage 1 may be impractical for development. This area represents a significant wildlife habitat and there are many rare plants, (in this case, the developer would be required to do site specific geotechnical/environmental analysis at the time of subdivision). Group 3 suggested that the houses be placed on the north side of the road across from the southern tip.
 - Groups 2 and 3 suggested that the new area be serviced by either a cistern or pressurized water system so that existing wells would not be in jeopardy.
 - Only Group 1 showed commercial within their concept plan. They proposed that the commercial be located in the long term expansion area (100 years), away from the playground.
-

- It was generally agreed by all groups that the first areas to be considered for development should be those areas within the existing hamlet boundary. Group 2 limited growth to those areas within the existing hamlet boundaries. Groups 1 and 3 identified Lot 3, Block B as a potential Stage 2 area with certain criteria being met before further growth could occur in Lot 3 (i.e. Stage 1 be 80% filled before further development) (see attached map). A long term expansion area was identified by Groups 1 and 3, being located north of Lot 3 (see attached map).

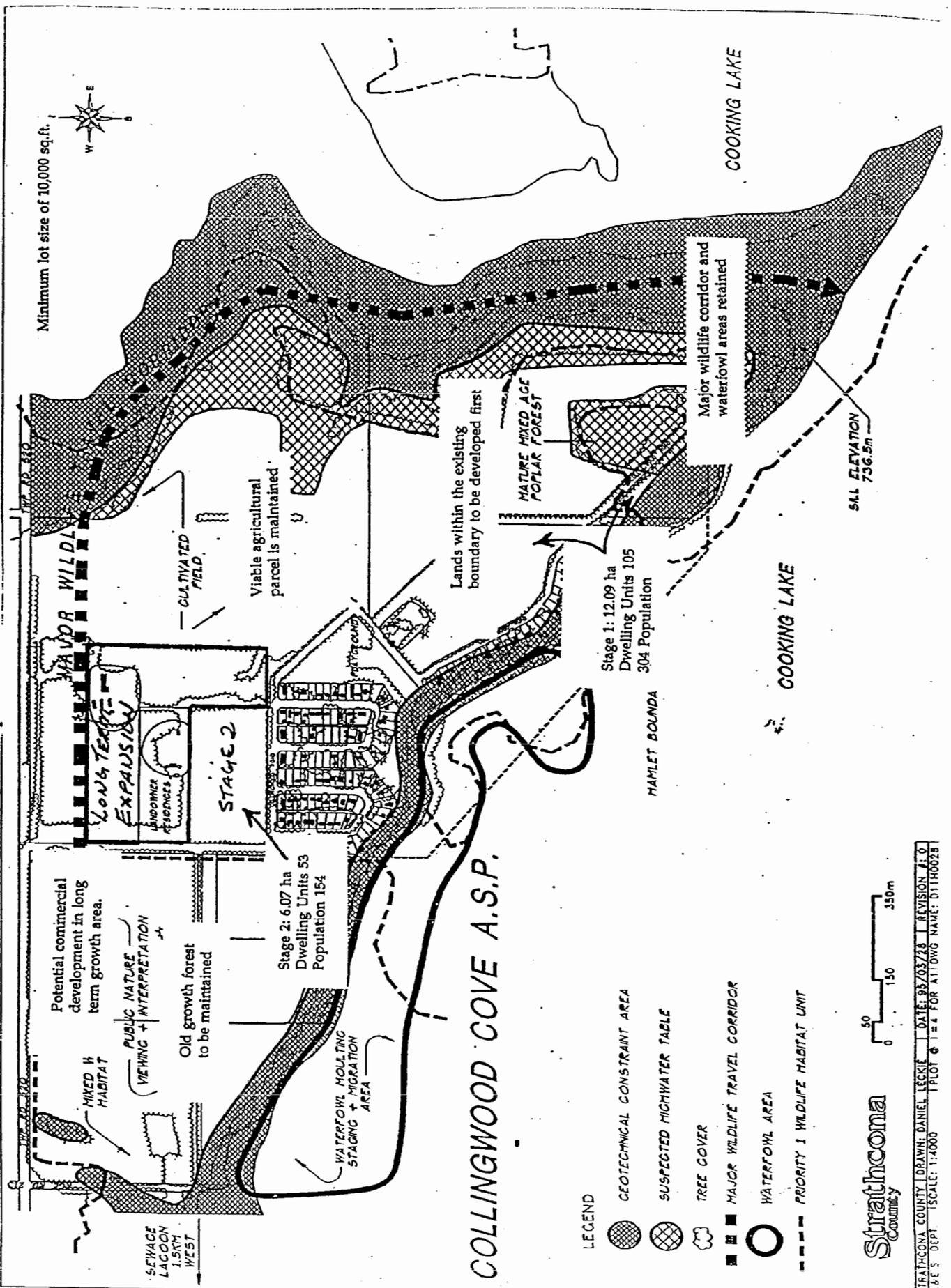
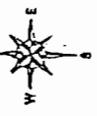
Other Comments

- Signs identifying "No Hunting Within One Km of Hamlet Boundary" be installed.
- The reserve in Stage 1 be concentrated in the southeast corner of the parcel or form a lineal treed buffer along the north and east sides of the parcel.
- It must be ensured that the sewage system can handle the increased flow which would be a result of further growth.
- The west half of Section 34-51-21-W4th be used as a wildlife park with pedestrian use and motorized vehicle use excluded.

Long Term Expansion: 27.0 ha
 Dwelling Units 236
 Population 684

Secondary access not
 necessary at this time

Minimum lot size of 10,000 sq.ft.



COLLINGWOOD COVE A.S.P.

LEGEND

- GEOTECHNICAL CONSTRAINT AREA
- SUSPECTED HIGHWATER TABLE
- TREE COVER
- MAJOR WILDLIFE TRAVEL CORRIDOR
- WATERFOWL AREA
- PRIORITY 1 WILDLIFE HABITAT UNIT



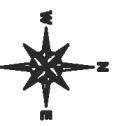
Strathcona
 County

STRATHCONA COUNTY DRAWN: DANIEL LECKIE DATE: 03/03/28 REVISION: 11.0
 P & S DEPT. ISCALE: 1:4000 PLOT 6124 FOR ATTORNG NAME: 011R0028

TWP. RD. 520

TWP. RD. 520

SEWAGE LAGOON 1.5KM WEST



MIXED WOOD HABITAT
PUBLIC NATURE VIEWING & INTERPRETATION

WATEROWL MOULTING STAGING & MIGRATION AREA

LANDOWNER RESIDENCE

LANDOWNER RESIDENCES

CULTIVATED FIELD

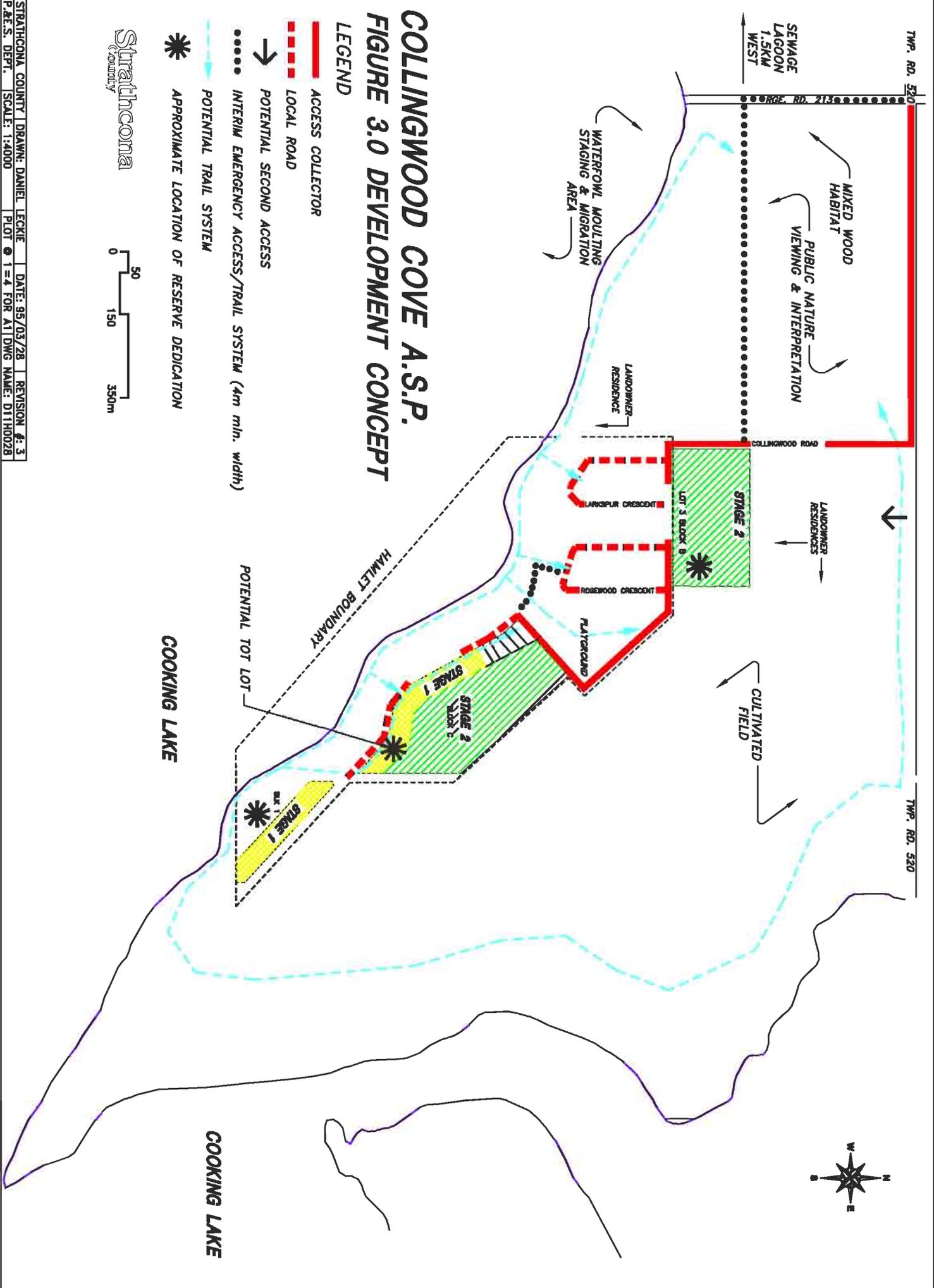
COLLINGWOOD COVE A.S.P. FIGURE 3.0 DEVELOPMENT CONCEPT

LEGEND

-  ACCESS COLLECTOR
-  LOCAL ROAD
-  POTENTIAL SECOND ACCESS
-  INTERIM EMERGENCY ACCESS/TRAIL SYSTEM (4m min. width)
-  POTENTIAL TRAIL SYSTEM
-  APPROXIMATE LOCATION OF RESERVE DEDICATION



STRATHCONA COUNTY DRAWN: DANIEL LECKIE DATE: 95/03/28 REVISION #: 3
P.&E.S. DEPT. SCALE: 1:4000 PLOT # 1=4 FOR ALL DWG NAME: D11H0028



COOKING LAKE

COOKING LAKE

HAMLET BOUNDARY

POTENTIAL TOT LOT

STAGE 2
2005'

STAGE 1

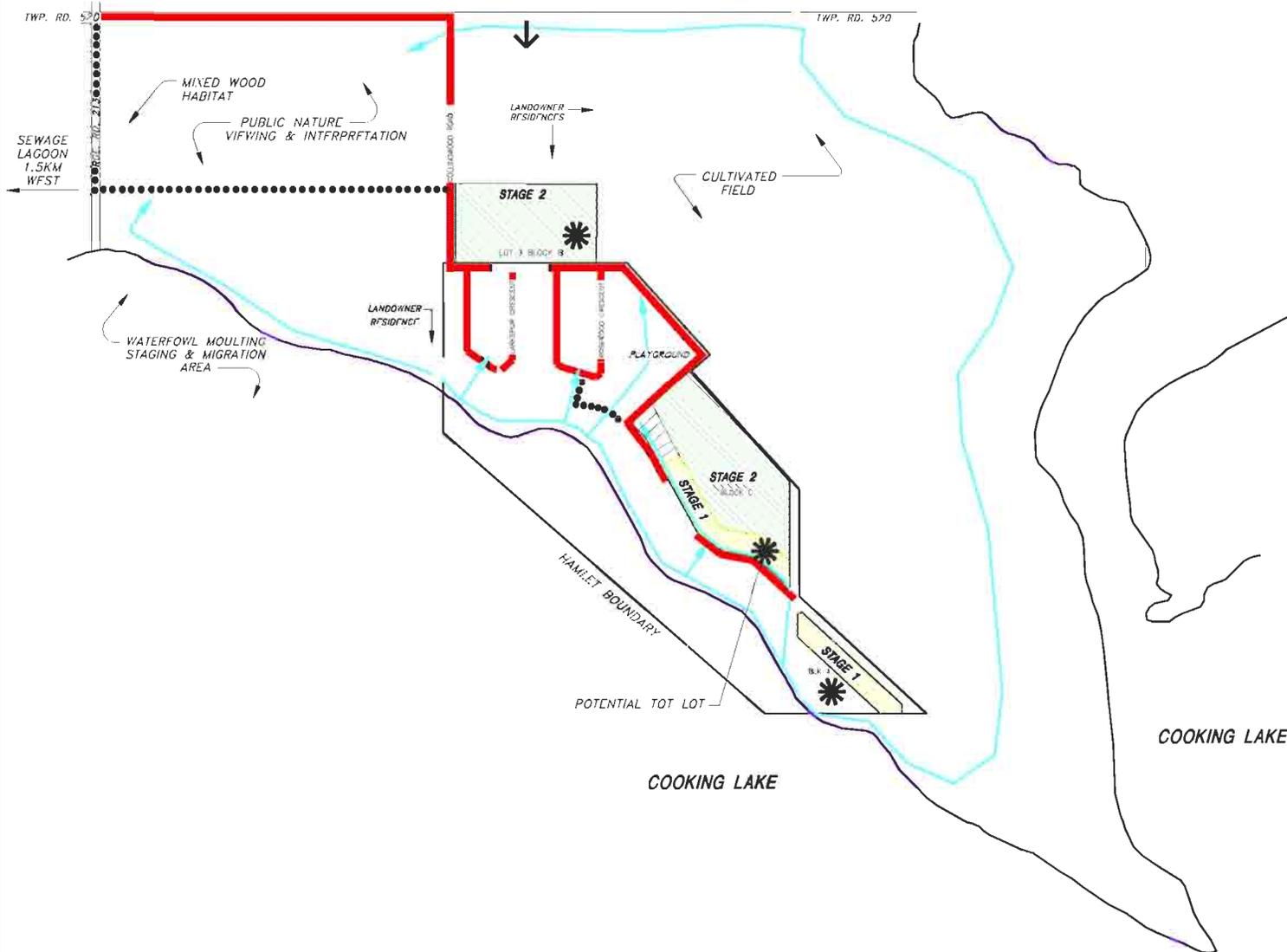
STAGE 1
2005'

LOT 3 BLOCK 8

WINDSPUR CRESCENT

ROSEWOOD CRESCENT

PLAYGROUND



Collingwood Cove Area Structure Plan

Bylaw 48-95

Date of Adoption 09 January 1996

-  Access Collector
-  Local Road
-  Potential Second Access
-  Interim Emergency Access/Trail System (4 m. min width)
-  Potential Trail System
-  Approximate Location of Reserve Dedication

Disclaimer of Liability

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Any reliance on the information contained herein is at the user's risk. Changes are periodically made to the ASPs/ARPs and may be made without notice. It is therefore recommended that you contact Planning & Development Review Services for original Plans.

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